



# SMALL SIMPLIFIED SITE PLANS

## Standards and Notes



### I. SUBMITTAL INSTRUCTIONS

**Submit To:** Durham City-County Planning Department

**Submittal Deadlines:** Due by 11:00 am on the deadline (see schedule below), but may be submitted in advance. Late submittals will be returned to the applicants or held until the next submittal deadline.

**Submittal Format:** All plan sets must be stapled together and folded with a maximum sheet size of 36" x 48".

**Incomplete Submittal:** If a submittal is deemed incomplete for processing, the applicant will be notified by the end of business on the submittal deadline and the submittal will be returned to the applicant.

**For More Information:** Contact Teri Danner, Planning Supervisor (teri.danner@durhamnc.gov), or another member of the Development Review Team. For projects within the Downtown Tier or any other Design District or Historic Districts Overlay, please contact Sara Young, Planning Supervisor (sara.young@durhamnc.gov), or another member of the Urban Design Team.

### II. SUBMITTAL CONTENT

# of Copies	Submittals must contain the following components and must be complete:
1	<input type="checkbox"/> Development Review Application for Administrative and Small Simplified Site Plans
1	<input type="checkbox"/> Check for review fee payable to "City of Durham" (see Section IV below)
8	<input type="checkbox"/> Site Plan copies
2	<input type="checkbox"/> Landscape and Buffer Worksheets and/ or Interactive Buffer Model
2 ( or 3*)	<input type="checkbox"/> A sealed, signed letter from a Professional Engineer or Registered Landscape Architect explaining changes in impervious surfaces from existing conditions (or previously approved plan if amended) <i>(If Stormwater Impact Analysis is required, use Site Plan Summary Checklist instead)</i>
2 ( or 3*)	<input type="checkbox"/> Nitrogen calculations (in City, contact City Stormwater for additional requirements, as applicable)
2	<input type="checkbox"/> Stormwater checklist (sealed and signed) for the correct jurisdiction (or both)
2 ( or 3*)	<input type="checkbox"/> FIRM panel map (legible with site drawn to scale)
2 ( or 3*)	<input type="checkbox"/> USGS maps (legible with site drawn to scale)**
2 ( or 3*)	<input type="checkbox"/> Soils Survey map (legible with site drawn to scale)**
3	<input type="checkbox"/> Stream delineations or permits (for ephemeral streams or stream intrusions)
3	<input type="checkbox"/> Special documentation and applications for any variations, cost proportionality, etc.
2	<input type="checkbox"/> Architectural elevations (for all non-industrial, non-residential buildings over 100 feet in length visible from a public street or adjacent residences, or as required by rezoning development plan) and parking plans for parking garages or under buildings
1	<input type="checkbox"/> Waiver for plans with pending Zoning Map Change Development Plans and/or Annexation (and submitted as a City case)
10	<input type="checkbox"/> Design District Review Team Submittal, if applicable (with separate application)

\*If the property will be annexed and is submitted as a County case, an extra copy is requested for a courtesy City review.

\*\*Print outs of the online versions of these maps are not accepted.

For site plan amendments, provide written justification for the scope of work if it does not include upgrading all landscaping (including but not limited to buffers, VUA landscaping, etc.), lighting, parking (including bicycle parking), sidewalks (internal and external), trash or service areas, etc. with basis for rational nexus argument

### III. OTHER CONCURRENT SUBMITTALS

Site plans will not be processed beyond the first review cycle until any required concurrent submittals have been made, as applicable. For information on other required concurrent submittals contact:

Appearance Commission (Required for Public Projects)	Anne Kramer, Planner (anne.kramer@durhamnc.gov)
Board of Adjustment (Minor Use Permits or Variances)	Michael Stock, Senior Planner (michael.stock@durhamnc.gov)
Downtown and Within Design Districts	Sara Young, Planning Supervisor (sara.young@durhamnc.gov)
Historic Preservation Commission (Within Historic Districts)	Lisa Miller, Planner (lisa.miller@durhamnc.gov)

### IV. FEE SCHEDULE (Effective July 1, 2009)

<b>Major Site Plan (UDO Sec. 3.7.1B.3)</b>	Use the Site Plan and Preliminary Plat Standards and Notes
<b>Minor Site Plan (UDO Sec. 3.7.1B.2)</b>	
<b>Large Simplified Site Plan (UDO Sec. 3.7.1B.1)</b>	
<b>Small Simplified Site Plan*</b>	\$1000 + 4% technology surcharge (\$1040 total fee)
<b>Administrative Site Plan</b>	Use the Summary Checklist for Administrative Site Plans
<b>Preliminary Plats (UDO Sec. 3.6.7)</b>	Use the Site Plan and Preliminary Plat Standards and Notes
<b>Final Plats (UDO Section 3.6.8)</b>	Use the Final Plat Standards and Notes
<b>Exempt Plats (UDO Section 3.6.2A)</b>	
<b>Re-review fees, if applicable</b>	Half of original fee, no maximum + 4% technology surcharge, applicable for each review after 1st re-review (starting with 3 <sup>rd</sup> review)

Note: Other departments may have review fees that are payable directly to them.

\*NOTE: Site Plan Amendments fees are based on the scope of the amendment and may be administrative, small simplified, large simplified, or minor site plans, or preliminary plats; fees are calculated at the applicable rate.

### V. 2009-2010 SMALL SIMPLIFIED SITE PLAN SUBMITTAL SCHEDULE (Every Friday)

<b>Submittal Deadline (11 AM)</b>	<b>Comments to Applicant (5:00 PM)</b>	<b>Submittal Deadline (11 AM)</b>	<b>Comments to Applicant (5:00 PM)</b>	<b>Submittal Deadline (11 AM)</b>	<b>Comments to Applicant (5:00 PM)</b>
November 20	December 9	February 5	February 24	April 23	May 12
November 25	December 14	February 12	March 3	April 30	May 19
December 4*	December 23	February 19	March 10	May 7	May 26
December 11	December 30	February 26	March 17	May 14	June 2
December 18	January 6, 2010	March 5	March 24	May 21	June 9
December 23*	January 13	March 12	March 31	May 28	June 16
December 31*	January 20	March 19	April 7	June 4	June 23
January 8	January 27	March 26	April 14	June 11	June 30
January 15	February 3	April 1*	April 21	June 18	July 7
January 22	February 10	April 9	April 28	June 25	July 14
January 29	February 17	April 16	May 5	July 2	July 21

\* Adjusted for holiday

## VI. GENERAL INFORMATION

REVIEW AGENCY	<b>Review Agency Key:</b> ALL = Multiple agencies (more than 3) BPE= Bicycle & Pedestrian Commission CCC = Cross-Connection Control CEC = County Erosion Control COU = County Utility Division CSW = County Stormwater DOS= Durham Open Space and Trails Commission ENH = Environmental Health FM= City or County Fire INS = Inspections NCD= NCDOT OS = County Open Space		PLA = Planning Department PLE = Environmental/Open Space Planning POL = Police PR= City Parks and Recreation PWE = City Public Works Engineering Division PWS = City Public Works Stormwater Division PWT = City Public Works Transportation Division SWD = Solid Waste TS = City Technology Solutions URF= Urban Forestry WM= City Water Management
	A. <b>General Information–</b> Item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan. <b>(UDO Sections 3.2.4, 3.6.6, and 3.7.4, and Public Works Reference Guide for Development)</b>		
	ALL	A.	The preferred sheet size is 24" x 36" (36" x 48" maximum); all sheets should be numbered; should be the same size and scale; and should show match lines, along with an index sheet or key. All submittals <b>must be folded</b> a convenient size (10" x 14" maximum dimension)
	ALL	A2.	Engineer's scale – no smaller than 1" = 200' (1" = 100' preferred). Larger scale showing more detail may be required. Include both a graphic scale and a numeric scale on each sheet.
	ALL	A3.	North arrow coordinated with any bearings shown on the plat.
	ALL	A4.	Title block (preferred location is right edge or bottom right corner) to include the following: <ul style="list-style-type: none"><li>• Name of proposed development on cover sheet and in title block on each sheet. Name must be approved and shall not duplicate any names currently in use except to amend existing development <b>(UDO Sec. 13.3)</b>. If project name has changed, that should be indicated by labeling "(Formerly _____)" in the title block.</li><li>• Submittal labeled "Small Simplified Site Plan." If project is also a preliminary plat, use the appropriate checklist instead of this one.</li><li>• Date (original and all revisions) should be shown on all sheets.</li><li>• Name, address, and telephone number of the Landscape Architect, Engineer, Surveyor, or Architect (with seal, signature and date). Fax number and e-mail address may also be included.</li></ul>
	PLA, PWS, CSW	A5.	Provide a sealed letter from a registered Professional Engineer or Landscape Architect that explains the change, if any, to the impervious surface for the site, including the existing impervious surface and what is proposed (matching the proposed plan). Attach a copy of the applicable Stormwater checklist and copies of the required maps with the site identified on them.
	B. <b>Cover Sheet – The following items are required on all cover sheets or first sheet (as applicable) (UDO Sections 3.2.4, 3.6.6, and 3.7.4, and Public Works Reference Guide for Development)</b>		
	PLA	B1.	Space blocked out for approval stamping (6" x 6"). The required location is adjacent to the Title Block in the lower right hand corner on the top sheet.
	ALL	B2.	Vicinity map with sufficient detail and legibility to locate the project in reference to nearby roads and recognizable landmarks. Vicinity map shall have its own north arrow if oriented differently than site plan or plat. If project is part of a larger one, provide an overall map of the project showing the location of the current site being proposed for development.
ALL	B3.	Space blocked out and labeled for listing "Special Conditions of Approval." This box should contain all the special conditions unique to the site. The required location is above the approval box, and adjacent to the title block on the cover sheet. Do not include General Conditions of Approval or Public Works Conditions of Approval in this box.	
ALL	B4.	"Public Works Conditions of Approval Box" should contain all the standard notes required by Public Works and should be listed in a separate box from any conditions that are truly unique to the site. It should be located on the top sheet of the plan set.	
ALL	B5.	Space blocked out and labeled for listing "General Conditions of Approval." This box should contain all standard notes and be located on the cover sheet. Do not include special conditions or Public Works Conditions of Approval notes in this box.	
ALL	B6.	For amendments to Zoning Ordinance cases, add a bold note above the approval box stating "This project was submitted under the regulations in the Durham Zoning Ordinance, due to the date of prior approvals, with the exception that it complies with the environmental protection requirements of Section 8, Section 3.8, 12.10, and 15.5 of the Unified Development Ordinance."	
ALL	B7.	For amendments to approved plans, provide a box labeled as "Revisions to Approved Plan" and list in the box the changes that are proposed from the previously approved site plan or preliminary plat. This should be easily distinguished on the cover sheet of the plan set.	

## VI. GENERAL INFORMATION (Continued):

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
ALL	<p>B8. Site Data Table including the following. All except items 1-8 are as applicable to the development and proposal:</p> <ol style="list-style-type: none"> <li>1. Name, address and telephone number of applicant and owner if different.</li> <li>2. Property Identification Numbers (PIN) for all properties.</li> <li>3. Tier, zoning and watershed or other overlay districts, as applicable, of subject property and current use (use not required for final plats).</li> <li>4. Neuse or Cape Fear River Basin, as applicable, of subject property.</li> <li>5. The total area (acreage), and the exterior boundary of all land included in the request for approval (defined by metes and bounds, with the source of all boundary information referenced). If only a portion of a tract is to be developed, label the area of development site and its size.</li> <li>6. Required setbacks, setback lines, and buffer limit lines (both existing and required).</li> <li>7. Label the existing impervious surfaces as square feet (if &lt; 1 acre) or acreage (if ≥ 1 acre) and as a percentage of the total site area (required for all sites within a watershed protection overlay or the Neuse River Basin).</li> <li>8. Label total proposed impervious surface square footage and percentage calculations for all development.</li> </ol> <p>Optional data, as applicable:</p> <ol style="list-style-type: none"> <li>9. Provide the total number of existing parking spaces and the basis for that number (the square footage of each existing use in the building) and the number existing stacking spaces for uses that require them.</li> <li>10. The total quantity of parking spaces required (including both existing and proposed uses) and the total quantity of parking spaces provided for both motor vehicles and bicycles. Indicate square footage of each use on site and number of spaces required for each use. Verify that parking provided does not exceed the maximum parking allowed in that Tier or District.</li> <li>11. The total quantity of handicap parking spaces required (<b>UDO Sec. 10.3.2</b>) and the total quantity of handicap parking spaces provided, including van accessible spaces.</li> <li>12. Total quantity of "Park and Ride" spaces required and provided for Shopping Centers (see <b>Sec. 10.2.2B</b> of <b>UDO</b>), as applicable.</li> <li>13. Total number of stacking spaces required and provided (<b>UDO Sec. 10.6</b>) for uses that require them.</li> <li>14. Label the total square footage of pavement in all vehicular use areas (parking areas, aisles, etc.).</li> <li>15. Area of floodway fringe or non-encroachment area fringe on site. <i>(Please note that fill or development in the floodway fringe would require a minor or major site plan per <b>Sec. 8.4.4 of the UDO</b>)</i></li> <li>16. Area of floodway or non-encroachment area on site. <i>(Please note that fill or development in the floodway fringe, where allowed, would require a minor or major site plan per <b>Sec. 8.4.4 of the UDO</b>)</i></li> <li>17. Label maximum height and number of stories of proposed buildings.</li> <li>18. Gross floor area of non-residential buildings and Floor Area Ratio (FAR, as applicable, with maximum allowable or minimum required. Label the FAR that exists on the site already.</li> <li>19. Existing and proposed tree coverage calculations (Suburban Tier only, except RS-20 and RR without mass grading) to show how the project meets the requirements of <b>UDO Section 8.3</b>. Tree coverage calculations, including amount required, and amount and percentage of tree coverage provided by preservation and replacement, shall be provided.</li> <li>20. Label existing open space calculations, with both percentage required and provided, and area in square feet or acres.</li> <li>21. Proposed open space--List % and acreage required, and % and acreage provided in site data table, and if active or passive (with % of each). (Not normally required for small simplified site plans, but if this is an amendment to a Zoning Ordinance site plan previously approved with payment in lieu of passive, public open space required, it should be noted as required prior to final plat approval).</li> <li>22. Existing number of residential units and density. Area within stream buffers, floodway fringe, floodway and some portions of steep slope areas may only be partially counted toward total site area in calculating allowable density and may not be allowed within lots. See <b>UDO Sections 8.4.4E, 8.4.4F, 8.5.5A, 8.5.7, and 8.8.4</b>.</li> <li>23. Proposed number of residential units and density, as restricted by environmental elements listed in B8.22 above. <i>If project requires a preliminary plat, that checklist should be used instead of this one.</i></li> </ol>
ALL	<p>B9. List any conditions applied to the property as part of any previous approvals on the cover sheet in the appropriate box. Committed Elements from zoning map change development plan should be listed in a separate box and labeled as such. Any items which have been previously completed should be noted as such.</p>

## VI. GENERAL INFORMATION (Continued):

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
CEC	<p>B10. In the General Conditions of Approval Box, per <b>UDO Section 3.8.1</b>, include as applicable:</p> <ul style="list-style-type: none"> <li>If the land-disturbance area is greater than 12,000 square feet, please include a plan note stating, “Land Disturbing Permit is required from Durham County Engineering S&amp;E Division.”</li> <li>If <b>UDO Section 8.3, Tree Coverage</b> applies: Please include a plan note stating, “Tree Protection Fencing and Installation Certification is required prior to the issuance of a Land-Disturbing Permit.”</li> <li>Please state if the project is in a High Quality Water Zone (See <b>UDO Section 16, Definitions</b>). If the project is in a High Quality Water Zone, please include a plan note stating, “The design standards for sedimentation and erosion control must meet High Quality Water Zone standards of <b>UDO Section 12.10.7.B</b>.”</li> </ul>
CEC	<p>B11. Erosion control plans, if required, should not be submitted as part of the site plan (<i>and if required may mean that the site plan is at least a large simplified site plan instead of a small simplified site plan</i>). Applicant must make a separate submittal to the Durham County Erosion Control Office unless a permit will be issued by the State for local government /public or State projects.</p>
PWT, NCD, INS	<p>B12. For amendments, list all roadway improvements required on the previously approved site plan for the current phase of the project in the “Special Conditions of Approval” box, under the subheading of “Required Prior to the Issuance of a Certificate of Compliance or Occupancy.”</p>
PWT, NCD, INS	<p>B13. If right-of-way-dedication is required, then note the dedication of any proposed right-of-way in the Special Conditions of Approval Box under the sub-heading of “Required Prior to the Issuance of a Building Permit.”</p>
PWT, INS	<p>B14. If a “payment in lieu of sidewalk construction” has been approved (per <b>UDO Section 12.4.6</b>) for any required sidewalk, then add the following note to the Special Conditions of Approval Box: “Prior to the issuance of any Certificate of Compliance or Occupancy, a payment in lieu for the required sidewalks must be provided to the City of Durham Engineering Division in the amount of \$_____ (_____ LF x \$65.00/LF).</p>
PWT	<p>B15. If sidewalks are provided via an approved alternative walkway plan (per <b>UDO Section 12.4.3</b>), add a Special Condition of Approval note indicating that, “Sidewalks are provided via an alternative walkway plan for _____ [name of the development] approved by _____ [name of approving authority] on _____ [date as month day, year].</p>
PWT, INS	<p>B16. For amendments to multi-phase developments, provide a Special Conditions of Approval note to limit the number of allowed Certificates of Compliance or Occupancy based on the number of points of access provided in accordance with the limitations stated in <b>UDO Section 13.6.3</b>.</p>

## VII. EXISTING CONDITIONS:

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
<p><b>C. Existing Conditions Sheet</b> – The following items are required on the existing conditions sheet for site plans, as applicable (<b>UDO Section 3.2.4, 3.6.6B, and 3.7.4B</b> and the <i>Public Works Reference Guide for Development</i>. <i>Other references noted below</i>).</p> <p>For small-scale projects interior to an existing site, this detailed information is only required if it is within 50 feet of the proposed development area. An overall plan showing the context may also show the information noted below with a separate “blow up” of the smaller area of the proposal showing only the applicable requirements.</p>	
ALL	<p>C1. Existing conditions must include a recent, sealed survey performed by a professional land surveyor licensed in North Carolina. The survey shall include all physical improvements on the site and the boundary information with source of the provided information.</p>
ALL	<p>C2. Amendments to existing approved site plans must include a copy of the approved site plan sheet as part of the plan set for comparison with the proposed conditions.</p>
ALL	<p>C3. All adjoining property lines shown with angle of departure.</p>
ALL	<p>C4. Names of adjacent development, property owners and current use.</p>
ALL	<p>C5. Adjacent land uses, including major improvements within 50 feet of the subject property or portion of the site with proposed changes.</p>
ALL	<p>C6. Tier, zoning and watershed or other overlay districts, as applicable, of all abutting properties and current use, including major improvements within 50 feet of the subject property.</p>

# VII. EXISTING CONDITIONS (Continued):

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
ALL	C7. When more than one property is involved in the request, all property lines should be shown and labeled as either "to remain," or "to be removed."
ALL	C8. Show any existing buildings, with the existing building area, height and number of stories (including basement), and label the areas (square feet) of each existing use within the building.
ALL	C9. Parking – show existing parking lots (labeled with paving material, edging, and number of spaces in each bay). Label the dimensions of the existing aisles and spaces, including handicap spaces and aisles.
ALL	C10. Show and label existing handicap parking spaces and signs; and show accessible routes, if any are existing.
ALL	C11. Show and label any existing bicycle parking spaces that meet current code for size, configuration, and location ( <b>UDO Sec. 9.4.4</b> ) with number of spaces provided or label plan with note to describe existing condition, "No bicycle parking exists" or "No bicycle parking required," as applicable.
ALL	C12. Show and label the width of any existing greenway easement, and plat book and page reference where it was recorded.
ALL	C13. All adjoining, internal and/or opposing existing rights of way, railroads, roadways and private drives should be shown with names, dedicated right of way widths, and pavement widths; labeled as "Existing" and either "Public" or "Private." Note any streets or rights of way that are unopened.
ALL	C14. All existing features and improvements (turn-lanes, driveways, sidewalks, hydrants, light poles, guy wires, etc.) that exist within the right of way must be shown. This is not needed if the project is an amendment internal to the site.
ALL	C15. Show all existing sidewalks, walkways, handicap ramps, crosswalks, and stop bars within, adjacent to, and across the street from the site.
ALL	<p>C16. Show all existing (within and/or within 100 feet of property line): septic tanks, drain fields and wells, water lines, sanitary sewer lines, services, cleanouts, valves, hydrants within 500' of the site, water meters and vaults, backflow preventers. Label all sizes, widths, inverts, and types of material information for all items.</p> <p>For amendments, show only those lines within the area of disturbance and if no utilities will be affected by the amendment, that should be clearly noted in lieu of this detail.</p>
ENH, PWE, COU	C17. For existing sanitary sewer or water services, mains, septic tanks/fields or wells being abandoned, label as being abandoned on the line or feature itself. Provide appropriate abandonment notes on demolition plan, utility plan, and cover sheet. For amendments, show only those lines within the area of disturbance and if no utilities will be affected by the amendment, that should be clearly noted in lieu of this detail.
ALL	C18. Show all existing (within and/or adjacent to subject property): culverts, storm sewer systems, catch basins, headwalls, junction boxes and other structures, ditches and swales. Label all sizes, widths, inverts and type of material information for all items. For amendments, show only those lines within the area of disturbance and if no utilities will be affected by the amendment, that should be clearly noted in lieu of this detail.
ALL	C19. Show and label all visible and apparent existing utility easements and rights of way (both public and private) within, or crossing, or forming a boundary of subject property with location, width and type of easement. Define all easements by centerline bearings, distances, and ties to property corners or page book and deed reference. Provide standard notes for all easements. For amendments, show only those easements within the area of disturbance and if none will be affected by the amendment, that should be clearly noted in lieu of this detail.
ALL	C20. Name and location of any cemeteries on site, or within area of proposed amendment, with easements shown and labeled.
ALL	C21. Existing contours, with a maximum of two foot contour intervals within 100 feet of the proposed development area and along all driveways, entrances, exits, private streets, parking areas, and loading areas; and a maximum of five foot contour intervals on the remainder of the property, including a source reference. All topography should be referred to permanent benchmarks and referenced to accepted datum. Durham topographical surveys may be used, unless site or project area includes Special Flood Hazard Areas (SFHA) or Future Conditions Flood Hazard Areas (FCFHA), in which case field location of the floodway fringe and BFE is preferred and may be required if development will encroach upon or be close to these SFHA or FCFHA. Field topography is recommended.
ALL	C22. Location and names of existing intermittent and perennial streams, or water bodies, on or adjacent to the site, including shorelines. Detailed plans for amended site plans should include any that impact the area of proposed disturbance.
ALL	C23. Show required stream buffers (labeled either as "perennial" or "intermittent" as shown on USGS 7½ minute quadrangles, USDA Soils Surveys or NRCSC maps) with standard notes. Stream buffer widths are measured from the top of bank, each side. See <b>Sections 8.5, 8.7, and 16 of the UDO, the Public Works Reference Guide for Development and Durham County Stormwater Ordinances</b> . If there are conflicts between these map sources, the most restrictive definition and standard applies. Field survey of top of bank of streams is required if features will be near the stream buffer. ( <i>Intrusions into the stream buffer, where allowed by Sec. 8.5.5 of the UDO, would require minor site plan approval by DRB rather than a small simplified site plan</i> ).



# VII. EXISTING CONDITIONS (Continued):

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
ALL	<p>C24. The boundaries of any steep slopes, wetlands, Durham Natural Inventory sites, and Durham Historic Inventory sites within or adjacent to the project site, with each uniquely patterned or shaded, with standard notes and buffers as required (<b>UDO Section 8</b>). Field survey locations of these areas is required if disturbance is proposed near them. <i>(If an applicant or property owner believes the presence or location of steep slope areas are different than what is shown on the appropriate topographic map, the Development Review Board shall have the authority to determine the location or presences of the moderate or steep slope area, per <b>Sec. 8.8.2C</b>, which would required a minor site plan approval by DRB rather than a small simplified site plan).</i></p>
ALL	<p>C25. Label the size of each of these areas in C24 above as either square feet or acreage (if <math>\geq 1</math> acre in size).</p>
ALL	<p>C26. Latest adopted base flood elevation (BFE) labeled and cross-sections drawn on stream to match latest approved FIRM panel information (J series, dated May 2, 2006, or later series, required). Base flood elevation data within the site should be field-surveyed and results drawn to scale and tied to field topography where possible. At a minimum, flood elevations should match City topography and not be scaled off of FIRM panels, where better information is available. Add <b>Standard Note 1</b>, below.</p> <p>If site is NOT within a flood hazard area, add note that, "This site is not in any Special Flood Hazard Areas or Future Conditions Flood Hazard Areas, as shown on FIRM Panel (add correct FIRM panel reference and date)."</p>
ALL	<p>C27. Where preliminary flood data is available that is more recent than the adopted FIRM panels, that information may be required by Stormwater Services or other agencies. In those instances, both sets of flood data should be reflected on the plans, with each clearly labeled with panel numbers and date. Preliminary data should be labeled as such.</p>
ALL	<p>C28. Location of any unique site features, such as vegetation and rock outcrops, within the 50 feet of the project area.</p>
ALL	<p>C29. Label the lowest finished floor elevation(s), height and number of stories of existing buildings on the site.</p>
PLA	<p>C30. Specimen tree survey of all trees, except pines (unless in the Rural Tier), greater than 18" diameter measured at 4½ feet above ground (<b>UDO Section 8.3.3C</b>). Trees should be located on plan, and labeled with size and species. Plans will not be accepted for review without this information, unless the proposed project area is internal to an existing development and there are no specimen trees within the project area (as certified on the plan).</p>
ALL	<p>C31. Any existing landscaping, buffers, or tree coverage within 50 feet of the project areas should be shown on the plan (<b>UDO Sections 8.3.1 and 9</b>).</p>
ALL	<p>C32. Show any existing dumpsters, recycling bins, or other waste handling facilities with enclosures, as applicable. If roll out carts are currently used please note that on the plan.</p>
ALL	<p>C33. Show locations and describe any existing light fixtures within the project area. These should also be shown on proposed lighting plan and landscape plan.</p>
PLA, DOS, PR	<p>C34. All parcels of land previously dedicated and/or reserved, for public or private use, shown with total land area, plat book and page reference. This would include any areas in greenway easements and/or conservation easements where impervious surface has been transferred to another parcel under the provisions of <b>Section 8.7.2B2 of the UDO</b> (indicate amount of impervious surface transferred and the PIN of parcel to which the impervious surface has been transferred).</p>
ALL	<p>C35. If some or all of the existing conditions are to be demolished, they may be shown in this plan if it is still possible to see the underlying existing conditions. Otherwise, a separate demolition plan should be provided that includes specifically what is proposed to be demolished.</p>
<b>D. Other Existing Conditions or Additional Information – Attach separate sheets as necessary</b>	
PLA, PWT	<p>D1. Show and label existing "Park and Ride" spaces for previously approved Shopping Centers, if applicable, within the vicinity of the proposed project (<i>new large shopping centers would require minor or major site plan approval</i>) (<b>see Section 10.2.2B of UDO</b>) with required signage and details of signage (details may be on a separate detail sheet.)</p>

Please see next page for Proposed Conditions

# VIII. PROPOSED CONDITIONS:

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
<b>E. Site Plan Sheet – all applicable information must be included on this sheet (UDO Section 3.2.4, 3.6.6B, and 3.7.4B and the Public Works Reference Guide for Development. Other references noted below).</b>	
ALL	E1. Site Data Table may also be included on this sheet with same information as on the cover sheet (See item B8, above).
ALL	E2. All base information as included on the existing conditions plan that will remain. Include all environmental and other restrictions on development, including, but not limited to streams with appropriate stream buffers and setbacks, delineations of floodway, floodway fringe (Special Flood Hazard Areas (SFHA) and Future Conditions Flood Hazard Areas (FCFHA)), Base Flood Elevation cross-sections, steep slope areas, wetlands with buffers, tree coverage areas, Natural Inventory sites, required landscape buffer widths, etc
ALL	E3. Clearly distinguish graphically between existing features and proposed features.
PLA, PR, DOS	E4. Verify conformance with the “Durham Trails and Greenways Master Plan” (DTAG). Label and show greenway dedications with standard notes. See Parks and Recreation Department for questions or latest copy of the DTAG.
PLA	E5. Verify conformance with the latest adopted Comprehensive Plan (UDO Sec. 13.2 and <i>Durham Comprehensive Plan</i> ).
PLA, DOS	E6. Verify conformance with adopted Open Space Plans for Little River, New Hope or Eastern Durham, as applicable (UDO Sec. 13.2 and plans referenced).
PWT	E7. Verify conformance with the most recently adopted Thoroughfare Plan (UDO Sec. 13.2). Note and illustrate the dedication of additional right-of-way as needed for the following: <ul style="list-style-type: none"> <li>• To comply with any committed elements on the development plan</li> <li>• To comply with future thoroughfare needs per all adopted plans</li> <li>• To provide additional right-of-way for proposed roadway improvements</li> <li>• To maintain a minimum of 10' of right-of-way from back of curb for all roadways to accommodate existing/proposed sidewalks, street lights, traffic control devices, and utilities</li> </ul>
PWT	E8. Verify conformance with the most recently adopted “Durham Walks” sidewalk plan or provide information about project costs to determine cost proportionality of public sidewalks (not more than 10% of project costs). See the City of Durham Public Works Transportation Division for the latest copy of this document.
PWT, BPE	E9. Verify conformance with the most recently adopted <b>Bicycle and Pedestrian Master Plan</b> . See the City of Durham Public Works Transportation Division for the latest copy of this document.
PLA, INS	E10. Details and dimensions necessary to show how the proposal meets <b>Articles 6 (District Intensity Standards) and 7 (Design Standards) of the UDO</b> .
PLA, INS	E11. For each proposed building: show location, footprint, entrances, area by floor (square feet), and proposed finished first floor elevation (grading plan also). (Note -- new buildings over 1,000 square feet or proposals requiring an updated Stormwater Impact Analysis will require at least a large simplified site plan approval and applicant should use that checklist).
PLA, INS	E12. Distances between buildings, including new and existing buildings, as applicable. Label proposed heights and number of stories of all buildings.
PLA, INS	E13. If a residential project involves less than 4 acres, infill standards of <b>Section 6.8, Infill Development in Residential Districts</b> are not optional, if applicable. Clearly identify proposed infill development standards that meet the requirements of <b>Section 6.8 of the UDO</b> . Attach documentation as needed for context area.
PLA, INS	E14. Provide documentation for Major Roadway Density Bonus ( <b>RS-M District Sec. 6.3.3B or RU Districts Sec. 6.4.3A</b> ), Thoroughfare Density Bonus ( <b>Sec. 6.3.4B</b> ) or Affordable Housing Density Bonus ( <b>Sec. 6.6</b> ) for projects that do not require a preliminary plat.
PLA	E15. Proposed building elevations and footprints if needed to comply with <b>Sec. 7.3.1</b> , or design guidelines for a zoning map change with a development plan ( <b>Sec. 3.5.6C.3n</b> ), or other design district overlay requirements (i.e. <b>Section 4.8 Downtown Design Overlay, Sec. 4.10, Historic Districts Overlay, Neighborhood Protection Overlay established pursuant to Sec. 4.5, Sec. 6.11.4, University College (within TUA), or Sec. 6.11.7, Mixed Use</b> ). A separate submittal is required for all projects to be reviewed by the <u>Design District Review Team or the Historic Preservation Commission</u> .
ALL	E16. Location and description of dedicated or reserved properties under public or private ownership including the boundaries, size, purpose, future ownership, and maintenance provisions for the property. This category includes but is not limited to thoroughfares, rail corridors, greenways, recreation facilities, open space and common areas.



# VIII. PROPOSED CONDITIONS (Continued):

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
ALL	E17. Clearly indicate and dimension all proposed driveways, with radii and width, and valley gutters. Illustrate a 48" valley gutter for all street type driveways/alleys. Provide adequate horizontal and vertical sight distance (per AASHTO requirements). All new driveways, or existing driveways proposed to be used in conjunction with a new use, may require a separate driveway permit from the NCDOT or City of Durham.
ALL	E18. Sight distance triangles (10' by 70' measured from back of curb for driveway intersections at ROW lines, 25' x 25', measured from edge of right of way, at intersection of two public streets, or as per NCDOT requirements at all other intersections) must be shown and labeled on site plan and landscape plans at a minimum ( <b>UDO Section 12.3.1D</b> ).
ALL	E19. All proposed parking areas (including drives and aisles) labeled with number of spaces provided and type (regular, compact, handicap). Label typical dimensions for parking spaces (standard, compact, parallel, and handicap with aisles) per <b>UDO Sec. 10.4.1</b> .
ALL	E20. Illustrate and dimension the location of required vehicle stacking spaces ( <b>UDO Section 10.6</b> ). Provide adequate internal stacking/storage for all gates, drive-up windows and other internal conflict points to facilitate safe vehicular, pedestrian, and bicycling movements within the site. <b>Please note that changes to any uses or facilities that require stacking, including but not limited to car wash bays, teller windows, fueling stations, order box or pick up window locations, or additions of these uses or facilities, will require the entire site to meet current stacking requirements.</b>
PLA, BPE	E21. Bicycle parking spaces may be required for new building or amended plan. Label locations and provide details provided of spaces and racks. Location and configuration shall meet requirements of <b>Section 10.4.4 of the UDO</b> .
INS	E22. Show and label proposed handicap parking spaces, including van accessible spaces (must also include the signage location and a detail/notation indicating that the signage is as per N.C.S.B.C. details R7-8 and R7-8D). Label locations of van accessible spaces. Handicap accessible parking must meet <b>North Carolina State Accessibility Code</b> and <b>Section 10.4.3 of the UDO</b> . Changes of use may trigger the requirement for upgrading handicap parking to current code, including provision of the handicap-accessible route (see E23 below).
INS	E23. Show and label striped handicap-accessible route from handicap parking spaces to the main entrance of the building. In gravel parking lots, this access must be paved with either asphalt or concrete and clearly marked on the pavement ( <b>UDO Sec. 10.4.3B</b> ).
ALL	E24. Typical proposed pavement structure (for all parking areas, loading areas, drives, aisles, etc.) may be labeled or detailed (on this or separate sheet), including detail of required pavement edging for gravel parking, where allowed ( <b>UDO Sec.10.4.2D</b> ). New gravel parking lots are allowed for required parking spaces in the Rural Tier only. In other Tiers, new gravel parking may only be used to provide excess parking. Parking blocks that help designate individual spaces and keep vehicles within the surface area shall be required in lots with greater than 10 parking spaces
ALL	E25. Show and label loading areas or loading spaces as required by <b>UDO Sec. 10.7</b> and how the proposal meets all applicable requirements of that Section. Any convenience store or similar use requiring frequent deliveries by truck shall demonstrate to the Development Review Board that adequate on-site area exists for the loading and unloading of such trucks (not permitted in any public right of way) ( <b>UDO Sec. 10.7.9</b> ).
ALL	E26. Show and label all service areas, including dumpsters and how the proposal meets all applicable requirements of <b>UDO Sec. 7.6 Utility and Trash Handling</b> , if applicable due to changing dumpster conditions or new dumpster or recycling proposed. Include appropriate means of access to a street or alley in a manner that will least interfere with traffic movement, and will most facilitate the service of the facilities. Note: per Public Works Policy, backing to or from a public street to a new service area is prohibited.
ALL	E27. Clearly label all sidewalks, trails and other pedestrian ways with locations, dimensions and surfacing, including handicap curb cuts, as required by <b>Sec. 12.4 of the UDO</b> or within specific <b>Planned Districts of Section 6.11</b> or as shown as a Committed Element on a Zoning Map Change Development Plan of record, per <b>Sec.3.5.6, Development Plan</b> . Provide cross-walks as needed and approved by Transportation or NCDOT.
PWT, PWE, INS	E28. If required to install sidewalk along the frontage of the property by <b>Sec. 12.4.2 of the UDO</b> and the City of Durham Transportation Division, all sidewalk shall be shown at the back of right of way. Handicap ramps shall be provided at all driveways and intersections and shall match existing handicap ramps and crosswalks for access. ( <b>See Public Works Reference Guide for Development</b> ). <b>Alternative sidewalk requests such as rational nexus or cost proportionality must be accompanied by written justification from the applicant as part of the submittal.</b>
ALL	E29. City jurisdiction: Show all internal sidewalks and provide handicap ramps per City of Durham standards. Pedestrian and bicycle facilities shall be clearly marked and connections shall be made to any existing or proposed off-site pedestrian and bicycle facilities, including public greenways and public ROW sidewalk ( <b>UDO Sec. 12.4.4.</b> ) Provide typical detail and a note in Public Works Conditions of Approval Box. ( <b>See Public Works Reference Guide for Development</b> )

# VIII. PROPOSED CONDITIONS (Continued):

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
ALL	<p>E30. City Only: Note any request for reduction in sidewalk due to cost proportionality (more than 10% of the project cost) or alternate sidewalk or payment-in-lieu of sidewalk construction, per <b>Sec. 12.4.6 of the UDO</b>, must be reviewed by the City of Durham Engineering and Transportation Division prior to approval (all such requests should be submitted in writing with the site plan submittal for review).</p> <p>If payment in lieu of sidewalk is approved, the applicant is required to place the following statement in the Special Conditions of Approval Box: "The applicant has requested approval to make a payment-in-lieu for the sidewalk along some or the entire frontage of this project, pursuant to Section 12.4.6 of the Unified Development Ordinance. This was approved by _____ [name of approving authority] on _____ [date of approval]. The applicant agrees to make the payment-in-lieu of sidewalk (amount of payment and length of sidewalk to be determined by the Public Works Department) when the applicant pays the City of Durham Engineering Division Inspection fees. If no inspection fees are required, the applicant agrees to make the payment-in-lieu of sidewalk before the 1<sup>st</sup> Certificate of Compliance or Occupancy will be issued." (<b>See Public Works Reference Guide for Development</b>).</p>
ALL	<p>E31. County jurisdiction: Show internal sidewalks and/or other proposed means of pedestrian access, unless a reduction in sidewalk is requested due to cost proportionality (more than 10% of the project cost) or alternative sidewalks are proposed. All such requests must be reviewed by NCDOT and City Transportation (unless outside the UGA) and should be submitted in writing with the site plan submittal for review). Pedestrian and bicycle facilities shall be clearly marked and connections shall be made to any existing or proposed off-site pedestrian and bicycle facilities, including public greenways and public ROW sidewalk (<b>UDO Sec. 12.4.4</b>). Provide cross walks and handicap ramps as needed per NCDOT standards.</p>
FM	<p>E32. <u>Fire Apparatus Access Roads</u></p> <ul style="list-style-type: none"> <li>• Width and height of roadways must meet <b>NC Fire Code Section 503</b>.</li> <li>• All-weather driving surface(s). Turf-paver type roadways must meet minimum design requirements.</li> <li>• Extent of roadways which brings fire equipment within close proximity to all points around building perimeter.</li> <li>• Gates across roadways: Siren-activated if electric, operable by one individual if manual, and so noted on plans.</li> <li>• Fire lanes may be designated by fire official by means of marked-up drawings. These lanes are to be marked in accordance with prescribed guidelines and so noted on plans.</li> <li>• Signage "FIRE EQUIPMENT ONLY – NO PARKING" placed at both sides of entrances to fire equipment turnaround locations where so designed.</li> <li>• Use of bollards across roadways must receive approval from the Fire Prevention Bureau/ Fire Marshal's Office where proposed.</li> </ul>
FM	<p>E33. Fire lanes shall be shown and labeled</p>
FM	<p>E34. <u>Firefighter Access Around and Into Buildings</u></p> <ul style="list-style-type: none"> <li>• The walking distance from any point where fire equipment may be parked, interior to the site, to all points around building or facility perimeter cannot exceed 150 feet where building served is not sprinkled, 200 feet where building served is sprinkled.</li> <li>• Clear space around buildings and facilities shall be provided to allow a firefighter to walk the building perimeter or facility without undue hardship.</li> <li>• Gateways in fencing, where subject to firefighter use, shall be minimum 5 feet wide.</li> <li>• Access doors allowing entry into buildings for firefighters as required under the North Carolina Building and Fire Codes must be shown (Example: High-piled combustible storage occupancies).</li> </ul>
ALL	<p>E35. If the applicant wishes to receive curbside collection of garbage and recyclables, designate a viable location for a waste handling facility on the plans, with space to accommodate a facility containing a garbage dumpster, a cardboard dumpster and at least four bins for other recyclables. Please see Site Plan Requirements and Capacity Calculation information at <a href="http://www.durhamnc.gov/departments/solid">www.durhamnc.gov/departments/solid</a> for details. <b>NOTE: Any multi-family development in which any building contains more than four residential units must provide dumpster service and is not eligible for curb-side collection.</b></p>
FM, PLA	<p>E36. Label all storage areas with type (Planning) and height of items stored for Fire Department information. Label any high-piled stock or storage areas (inside or outside) with type of material.</p>
FM	<p>E37. <u>Special Hazards</u>: The layout of any and all hazardous materials storage tanks, outside hazardous materials storage and dispensing areas, lumber yards, tire yards, waste material yards needs to be shown.</p>
ALL	<p>E38. Specific performance standards as required by other Articles of the <b>UDO</b> and within specific Overlays in <b>Sec.4 of the UDO</b>.</p>

# VIII. PROPOSED CONDITIONS (Continued):

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
<b>F. Grading and Storm Drainage Plan</b>	
ALL	<p>F1. <i>Grading or disturbance of more than one acre requires submittal of a large simplified site plan and that set of standards should be used instead.</i> Provide preliminary grading for all proposed projects. Provide contours at a maximum of two-foot contour intervals. <b>(Note: statements that grading plans will be submitted at construction drawing submittal will not be accepted). (See Public Works Reference Guide for Development)</b></p>
ALL	<p>F2. Limits of land disturbance activities, pursuant to <b>UDO Section 12.10, Sedimentation and Erosion Control</b> shall be clearly shown on the site plan. Additionally, include a plan note stating the total disturbed area acreage. The Erosion Control Plan should not be included with the site plan.</p>
ALL	<p>F3. For each proposed building or building addition (less than 1,000 square feet or use other site plan checklist): show location, footprint, and proposed finished first floor elevation. Provide finished floor elevations for all other structural improvements (concrete pads, pump stations, etc). <b>(See Public Works Reference Guide for Development)</b></p>
ALL	<p>F4. <i>New construction within the Special Flood Hazard Areas and Future Conditions Flood Hazard Areas falls into the minor or major site plan category (per UDO Sec. 8.4) and this checklist would not be used.</i> New construction or substantial improvement of any residential structure (including manufactured homes) shall have the reference flood elevation level, including basement, elevated no lower than the regulatory flood protection elevation (<b>UDO Sec. 8.4.3B.2</b>).</p>
ALL	<p>F5. New non-residential construction or substantial improvement of a non-residential structure shall have the reference floor elevation, including basement, elevated no lower than the regulatory flood protection elevation. <i>Such development may require approval of a minor or major site plan at a minimum, per UDO Sec. 8.4.</i> Non-residential structures located in AE and X (Future) Zones may be flood proofed in lieu of elevation if they meet requirements of <b>Section 8.4.3B.3 of the UDO</b>.</p>
ALL	<p>F6. Proposed contours with a maximum of two foot contour intervals within 100 feet of all buildings and along all driveways, entrances, exits, private streets, parking areas, loading areas, retaining walls and a maximum of five foot contour intervals for the remainder of the property. Supplement with spot elevations where necessary. Top and bottom of wall elevations should be included as necessary to understand the design. All topography should be referred to permanent benchmarks and referenced to accepted datum. City of Durham Topographical Surveys or USGS maps may be used, except as noted for floodplains.</p>
PWE, PWS, CSW	<p>F7. Provide a preliminary storm drainage layout plan, which shows basic storm drainage locations, with easement sizes and locations, as needed for the scope of the project. Preliminary pipe sizes are not required on internal storm drainage systems at site plan stage. All storm drainage lines and easements should be located in open space as much as possible. Storm drainage easements cannot be shown as combined easements <b>(See Public Works Reference Guide for Development and UDO Section 12.8 Stormwater Management)</b>. <b>Section 3.6.8F.3e of the UDO</b> requires that construction drawings be approved prior to approval of the final plat.</p>
PWE, PWS, CSW	<p>F8. Label all storm drainage easements with standard notes (see Public Works Standard Notes below). See Public Works <b>“Reference Guide for Development”</b> and City Stormwater Service checklist (attached), or County Stormwater checklist (attached), as appropriate. Please note that projects that are currently in the County jurisdiction, but will be annexed, are subject to a courtesy review of stormwater calculations by City Stormwater Services during site plan or preliminary plat review.</p>
PWE, PWS, CSW	<p>F9. Provide typical sections for proposed surface drainage (ditches, swales, special features, etc). <b>(See Public Works Reference Guide for Development)</b></p>
ALL	<p>F10. On small streams where no base flood data has been provided, no encroachments, including fill, new construction, substantial improvements or new development, shall be permitted within the setbacks established in <b>UDO Section 8.5 Stream Buffer Protection Standards</b>, or <b>Sec. 8.7 Watershed Overlay Protection Standards</b>, or 20 feet each side from top of bank or five times the width of the stream, whichever is greater (<b>UDO Sec.3.22.3C</b>). If encroachments are proposed within 20 feet of each side of the stream, from top of bank, or five times the width of the stream, whichever is greater, certification with supporting technical data by a registered professional engineer shall be provided demonstrating that any encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge (<b>UDO Section 8.4.2C.1</b>). <i>Such encroachments would likely change the plan to a minor site plan or major site plan and special use permit.</i></p>

# VIII. PROPOSED CONDITIONS (Continued):

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
ALL	<p>F11. For floodplains with no Base Flood Elevation (BFE) data, the BFE used in determining the regulatory flood protection elevation shall be determined based on one of the following, in priority order:</p> <p>a. If BFE data is available from other sources, all new construction and substantial improvements shall also comply with the <b>UDO</b> and be elevated or flood proofed in accordance with <b>UDO Sec. 3.22.1B(11&amp;12)</b>; or</p> <p>b. When BFE data is not available from a Federal, State or other source, the reference level shall be elevated to or above five feet above the highest adjacent grade.</p>
ALL	<p>F12. For floodplains with Base Flood Elevations (BFE) but no established floodway or non-encroachment areas, no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community (<b>UDO Sec.8.4.3D</b>). <i>If DRB approval is required, the plan will become a minor site plan.</i></p>
ALL	<p>F14. Show required stream buffers (labeled either as “perennial” or “intermittent”) as described in Existing Conditions section. For intrusions into streams, or when a determination is required regarding the presence or absence of a stream, the appropriate City or County Stormwater review agency must make a determination and pass that on the approving authority. <i>Such encroachments would likely increase the plan to a minor site plan with approval required by DRB.</i></p>
ALL	<p>F15. Include copies of any delineations, permits, or maps from US Army Corps of Engineers or NC DWQ related to wetlands or Neuse River Basin streams identified on site in the vicinity of the project.</p>
ALL	<p>F16. Label total impervious surface square footage and percentage calculations for all development. <i>Sites that require Engineered Storm Water Control devices, drainage calculations, etc. are not Small Simplified Site Plans and should be submitted with the appropriate checklists. Amendments to approved Preliminary Plats must include maximum area of impervious surface allocations (MAIS) for each lot. If these vary within the subdivision, a table indicating the MAIS for each lot or group of lots is required on the cover sheet of the plans.</i></p>
ALL	<p>F17. Show all existing vegetation within the project area to remain, labeled as such</p>
ALL	<p>F18. Tree protection fencing (<b>per UDO Section 8.3.2</b>) to protect areas of existing vegetation, within 30 feet of any proposed grading or disturbance, should be located on the plan and detailed along with standard notes (<b>UDO Section 8.3.2</b> and Standard Notes 22, 23, 24, below). Tree protection fence detail shall include warning signs in both English and Spanish and be placed at each end of the tree protection fencing and spaced a maximum of 100 feet apart in between. See also the separate <b>Landscape Guidelines for Durham, North Carolina</b>.</p>
PLA	<p>F19. Land disturbance tree surveys of all required, protected trees over 10” caliper, including those within areas of environmental concern and within 30 feet of any disturbance. Root protection zones, per <b>Section 8.3.2B of the UDO</b> (with a key), shall be drawn to scale, and labeled with size and species of trees identified by the land disturbance tree survey (<b>UDO Section 8.3.3D</b>).</p>
<b>G. Utility Plan (UDO Section 12, and Public Works Reference Guide for Development for projects in the City limits)</b>	
ALL	<p>G1. All utilities must be installed underground (to be noted on all plans) (<b>UDO Sec. 12.9.1B</b>) If it is not feasible to do so, as determined by the Planning Director or designee, it must be clearly shown and noted on the plan.</p>
PWE, COU, WM	<p>G2. Show and label all proposed water and sanitary sewer lines as public or private. Preliminary sizes may be shown but are not required. For projects utilizing existing building services (such as a building expansion), please provide a note on the plans stating that existing building services will be used. If no utilities are required (example: maintenance shed), it should be noted on the plan that this is the case. See Public Works <b>Reference Guide for Development</b> for more information for projects within the City limits or that will be annexed into the City. See County Engineering for standards for projects served by County sewer.</p>
PWE, COU, WM	<p>G3. Show locations of all proposed valves, manholes, sewer cleanouts, hydrants, meters with sizes. Sewer cleanouts located in traffic areas shall be labeled as traffic bearing cleanouts. (<b>See Public Works Reference Guide for Development</b>)</p>
PWE, COU, WM	<p>G4. Show all services at right-of-way line behind sidewalk if applicable. Show all backflow prevention devices needed outside of the right-of-way (in vault with 4” PVC drain or above ground hot box). (<b>See Public Works Reference Guide for Development</b>)</p>
PWE, WM	<p>G5. City of Durham utilities: Waterlines shall be located on the north and east side of roadways and sanitary sewer lines shall be located on the south and west side of roadways. All sanitary sewer outfalls shall be located in open space or common areas. (<b>See Public Works Reference Guide for Development</b>). Outfalls that require disturbance of more than one acre of land require a large simplified site plan.</p>



# VIII. PROPOSED CONDITIONS (Continued):

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
PWE, WM	G6. City of Durham utilities: All sanitary sewer and waterlines shall provide for connectivity to adjacent properties as required or directed by the City of Durham Engineering Division. <b>(See Public Works Reference Guide for Development)</b>
ALL	G7. All food service dumpsters and compactors are required to have drains to a sanitary sewer. Dumpster pads shall be designed to not allow any other surface drainage into sanitary sewer. <b>(See Public Works Reference Guide for Development)</b>
PWE, COU	G8. If a sanitary sewer force main is proposed add a note stating that, "Force main shall be ductile iron pipe per City of Durham Standards with a <i>Protecto 401</i> or equal lining." This is only required where water column separates from pipe and creates an air pocket (at high points with air release valves). <b>(See Public Works Reference Guide for Development)</b> . See County Engineering for projects with County sewer.
PWE, COU	G9. Proposed water and sanitary sewer easements with standard notes, either public or private, including connections to existing facilities and any maintenance provisions. See <b>Public Works Reference Guide for Development</b> for projects within the City limits or that will be annexed. See County Engineering for projects using County sewer. <b>Note: For all encroachments into the stream buffer by sanitary sewer mains or easements, Development Review Board must approve a minor site plan. Please use separate checklist.</b>
ENV, PLA	G10. For projects utilizing on site water supply or waste disposal, plans should be referenced with standard notes
ENV, PWE	G11. If a site is using a well and proposes to provide a sanitary sewer service for project add a note stating that a standard water meter is required to be installed on well for sanitary sewer billing purposes. <b>(See Public Works Reference Guide for Development)</b>
WM, PWE, PWS	G12. DEPARTMENT OF WATER MANAGEMENT: Industrial Waste Control: <ul style="list-style-type: none"> <li>On restaurants: Identify and show the location of the grease trap.</li> <li>On car washes: Show and identify the location of the oil/water separator</li> </ul>
CCC	G13. Cross-Connection Control – Need to review all non-residential structures that will be connected to the Durham Public Water System. Designer should: <ol style="list-style-type: none"> <li>See Department of Water Management "Cross-Connection Control Manual" for backflow preventer requirements.</li> <li>Identify type of backflow prevention assembly (including ASSE approval number)</li> <li>Location of assembly (including how unit is to be installed - above ground in insulated enclosure, in vault with type of drainage identified, in building with adequate floor drainage identified, etc.).</li> <li>Indicate height of building and number of floors served by water.</li> <li>Identify whether pumps or chemical additives will be used in the system design.</li> <li>Identify outside water uses on site (pools, fountains, lawn irrigation, etc.)</li> <li>When backflow preventers are required, include standard note on utility plan: "Backflow preventer permit required for project. Backflow preventer installer must contact Durham Cross-Connection Control, Department of Water Management at (919) 560-4194 to obtain permit and installation requirements prior to initiating work.</li> </ol>
FM, PWE	G14. <u>Water Supplies and Firefighting Equipment and Appurtenances</u> <ul style="list-style-type: none"> <li>Refer to the City of Durham Public Works Engineering Division <b>Reference Guide for Development</b> regarding the general requirements for layout of fire equipment and water supplies, including fire hydrants.</li> <li>All fire hydrants and fire department connections must be provided with 5 inch diameter Storz connections. Fire department connections must be oriented 45 degrees towards grade. These conditions are to be noted on utility plan sheet.</li> <li>Provide note on utility plan sheet: Provide Fire Plans Examiner one copy of utility construction drawings, showing underground piping layout and all fire appurtenances. Permit for installation of private fire hydrant(s) must be issued by Fire Plans Examiner prior to installation of said hydrants.</li> <li>Landscaping and hardscaping layout must be arranged to allow clear visibility of all fire equipment upon approach, with ready access provided thereto.</li> </ul>
<b>H. Site Lighting Plan (UDO Sec. 7.4)</b>	
INS, PLA	H1. For any proposed lighting, the plan should include a detail showing the height to top of the fixture from surrounding grade, type and detail of fixture, and locations of all exterior lighting. In addition, parking lot and canopy lighting shall be shielded so that it does not cast direct light beyond the property line. Provide all standard notes. Lighting plan must meet the minimum requirements of <b>UDO Sect. 7.4.3 or applicant must provide written justification for not providing lighting.</b>



# VIII. PROPOSED CONDITIONS (Continued):

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
<b>I. Tree Coverage Plan Suburban Tier only (UDO Sec.8.3) (may be included on Landscape Plan sheet) or separate as needed to clearly show this information</b>	
PLA	11. Tree coverage, as required by <b>Section 8.3 of the UDO</b> , applies only in the Suburban Tier, and not in the RS-20 and RR Districts in the Suburban Tier except where mass grading is utilized, unless included as a committed element on the development plan for a zoning map change. It applies to all new development other than additions to existing single-family detached houses.
PLA	12. For projects with additions to existing developed sites, as of January 1, 2006, required tree coverage is calculated as a percentage of the project area or area of disturbance, whichever is larger (10-15% for non-residential projects or 20-25% for residential projects) ( <b>UDO Sec. 8.3.1C.2</b> ). Additions to existing development shall provide tree coverage as a percentage of the area proposed for disturbance. Trees to meet this requirement may be located on another part of the overall project site.
PLA	13. Show location of all tree coverage areas (preservation and/or replacement areas) with each area labeled individually with width and size in square feet. Tree coverage areas must meet minimum dimensions of <b>UDO Sec.8.3.1D</b> . Show required 10 foot building setback from preserved tree coverage areas ( <b>UDO Sec. 8.3.1D.5</b> ).
PLA	14. Existing vegetation within tree coverage areas shall be shown as follows: Samples, as described in <b>UDO Sec. 9.3.3</b> , of each unique stand of vegetation (except within areas of environmental concern, as exempted by the ordinance) should graphically show locations, size, and species for all trees within a 20' x 20' typical forested area. Root protection zones, per <b>UDO Sec. 8.3.2B</b> , for all trees within the sample area shall be shown graphically.
PLA	15. Tree coverage area for a cluster of trees shall be determined by the exterior boundary of the total root protection zones for all of the trees in the cluster ( <b>UDO Section 8.3.1D.3</b> ). Therefore, a survey of the trees along the edge of a tree preservation cluster is required as part of the tree coverage plan (may be done as part of the land disturbance tree survey), to include size, species and root protection zones drawn to scale. Individual trees, at least 10 inches dbh, may be counted toward tree coverage requirements as long as 75% of the root protection zone is located on site. Specimen trees greater than 18 inches dbh that are preserved outside of required buffers shall be credited at 1.5 times the root protection zone. (See <b>UDO Sec. 8.3.1D.4</b> for individual trees.)
PLA	16. Tree coverage calculations (amount required in square feet, and amount and percentage of tree coverage provided by preservation and replacement) should be included on the landscape plan if it can be easily distinguished from other landscaping requirements. Label species and sizes of trees proposed to meet requirements of <b>UDO Sec.8.3.1E</b> . Tree replacement credits are based on the size of trees to be planted within each tree replacement area. See <b>UDO Sec.8.3.1E.3</b> for the table of replacement credits. Tree replacement areas must be large enough to provide, as a minimum, the equivalent ground area under trees as the requested tree replacement credits. Extra credits are not given for larger ground area than equivalent credits for the trees proposed to be planted. No credit is given for shrubs.
<b>J. Landscape Plan (UDO Sections 3.6.6C.3, 3.7.4C.6, and 9.4)</b>	
ALL	J1. Show all existing vegetation to remain, labeled as such. Any existing plantings to remain within the area of proposed disturbance shall be protected with tree protection fencing per <b>UDO Sec. 8.3.2</b> .
ALL	J2. Existing vegetation to remain, and all proposed plantings, should be coordinated with the utility plan, lighting plan, and the grading/storm drainage plan to eliminate conflicts. No landscaping is allowed in water, sewer, or drainage easements. Existing landscaping within proposed easements must be removed, as directed by Public Works, and labeled as "to be removed" on the proposed site plan. If such existing landscaping is fulfilling Ordinance requirements, alternative landscaping must be proposed and approved as part of the site plan. (See Public Works <b>Reference Guide for Development</b> ).
PLA, POL	J3. Planting design should incorporate suggested <b>Design Guidelines of UDO Sec. 9.2.1</b> , including but not limited to water-wise landscaping, Crime Prevention Through Environmental Design principles, and division of large parking lots into smaller ones through landscape placement, etc. to the extent practical.
PLA	J4. Proposed plantings shall meet the minimum size requirements of <b>Sec. 9.2.2 and 9.2.3</b> , unless alternate sizes are required by other requirements of <b>Sec. 9</b> or allowed by the approving authority through the provisions of <b>Sec. 9.1.3 Variations</b> .
PLA	J5. Proposed plantings must meet the requirements of the mixing of species, per <b>UDO Sec. 9.2.3B.5 Mixing of Tree Species and 9.2.3C.2 Mixing of Shrub Species</b> . The Planning Director, or designee, shall have the authority, under <b>UDO Sec. 9.2.3D</b> , to allow variations of up to 20% in the mix of plants to meet the criteria specified in that Section.
PLA, URF	J6. Plant preferences and restrictions: Refer to the latest version of the adopted <b>Landscape Guidelines for Durham, North Carolina</b> for a list of preferred species ( <b>UDO Sec. 9.2.3E</b> ), including preferred locations for various plants, and also for the list of plants prohibited for any use due to invasive tendencies ( <b>UDO Sec. 9.2.3F</b> ) and those which may be planted but are not allowed for credit ( <b>UDO Sec. 9.2.3G</b> ).

# VIII. PROPOSED CONDITIONS (Continued):

REVIEW AGENCY	<p><b>Review Agency</b> – See first sheet for key to agencies</p> <p>Each item is <u>required</u> information on all plans submitted for approval, as applicable to the project and within the project area, if this is a modification to an existing plan.</p>
PLA	<p>J7. Buffers – <b>For additions to existing sites, provide justification to the Development Review Section of the Planning Department for portions of the perimeter where applicant believes buffers are not required.</b> If buffers are needed, existing vegetation within buffer areas required by <b>UDO Sec. 9.4, Project Boundary Buffers</b> or <b>Sec. 9.5, Land Disturbance Buffers and Revegetation</b> shall be shown as follows: samples, per <b>UDO Sec. 9.3.3</b>, of each unique stand of vegetation should graphically show locations, size, and species for all plant material within a 20' x 20' typical forested area. Root protection zone, per <b>UDO Sec. 8.3.2B</b>, for all trees within a sample area shall be shown graphically. Understory trees and shrubs should also be located and identified.</p>
PLA	<p>J8. If buffers are required, the landscape plan must include a Project Boundary Buffer analysis sheet, including labeling Tier, zoning, and use of all surrounding properties, slope analysis (detailing the percent and direction of slope, and difference in elevation) for each buffer segment within any project boundary buffer required by <b>UDO Section 9.4</b>. Label the required buffer opacity and buffer alternative proposed, per <b>UDO Sec. 9.4.5B or 9.4.5C</b>. If the <u>Interactive Buffer Model</u>, per <b>UDO Sec. 9.4.7</b>, is proposed, that should be clearly labeled on the plan, with the required opacity and proposed buffer alternative used.</p>
PLA	<p>J9. A natural buffer, per <b>UDO Sec. 9.4.4</b>, is required in the Rural and Suburban Tiers where an 80% opacity or greater is required, and where the existing tree cover exceeds 15 feet in height, and where the existing tree canopy covers 75% or more of the required buffer area. The minimum width of a required natural buffer is 50 feet.</p> <p>Natural buffers may be provided as an option other tiers, and in the Rural and Suburban Tiers if a natural buffer is not required, as long as the minimum width of the natural buffer is either 25 feet or the width required to satisfy <b>UDO Sec. 9.4.5, Constructed Buffers</b>, whichever is greater.</p>
PLA	<p>J10. Show all other proposed landscaping and provide a unique symbol or identifier for each plant tied to the keyed plant list (see example at the end of this section). Plant list should be clearly labeled to indicate each requirement of <b>UDO Sec. 9</b> each plant fulfills. If optional plantings are provided, those should be labeled as such. If multiple sizes of the same plants are to be specified, each size should also be keyed uniquely for easy identification on the plan and in the field at the time of landscape inspection.</p>
PLA, URF	<p>J11. <b>All projects may be subject to street tree requirements, unless the Planning Director approves a reduction in street trees based on the applicant's written justification for additions to existing projects.</b> Show and label street trees required by <b>UDO Sec.9.6</b> on the plan with plant list, as above, if multiple lots are proposed, include a table showing number of street trees to be planted per lot, including open space lots (<i>if a preliminary plat is required, use that checklist</i>). Include calculations of the number of street trees required and the number provided by tree preservation and tree installation. Existing trees to be used to meet street tree requirements should be located and labeled with size, species, and root protection zone drawn to scale, and number of street tree credits requested on the plan. Street trees proposed to be planted within right of way or within 4 feet of the right of way must be approved by both Public Works and Urban Forestry during the review process.</p>
PLA	<p>J12. Screening required by <b>UDO Sec. 9.7</b>, Screening, or for certain uses, pursuant to <b>Sec. 5.3, Limited Use Standards</b>, must be detailed and labeled as proposed screening on the plan. Any combination of features used to fulfill these requirements must meet the standards of <b>UDO Sec. 9.7.2</b>. Include proposed height, details, description, and cross-sections as needed.</p>
PLA	<p>J13. Description and detail of all walls and/or berms used to fulfill any landscaping or screening requirements, with height, details, and cross-sections as needed. Fences should be labeled with height and materials and a detail provided, although they may not be used to reduce buffer widths. See <b>UDO Sec.9.9, Fences and Walls</b>, for requirements.</p>
PLA	<p>J14. Vehicular Use Area landscaping shall meet the requirements of <b>UDO Sec. 9.8</b>, as applicable per <b>Sec. 9.8.1B</b>.</p>
ALL	<p>J15. Show and label all utility conveyance systems with easements and lighting on the landscape plans (may be half-toned) to identify and prevent any conflicts with proposed landscaping. (<b>See Public Works Reference Guide for Development</b>) Proposed vegetation is not allowed in rights-of-way and easements (<b>City of Durham Public Works Reference Guide for Development</b>). Some types of groundcovers may be permitted within public easements. Proposed large vegetation within public ROW will require approval from the Public Works Department or North Carolina Department of Transportation, as applicable.</p>
PLA, URF	<p>J16. Landscape planting details for trees, shrubs and groundcover. See separate <u><b>Landscape Guidelines for Durham, North Carolina</b></u> document for recommended details.</p>

## EXAMPLE OF REQUIRED PLANT LIST

KEY <sup>3</sup>	LATIN NAME	COMMON NAME	SIZE <sup>1</sup>	BOUNDARY BUFFERS	MASS GRADING BUFFERS <sup>2</sup>	STREET TREES <sup>2</sup>	VUA RIGHT OF WAY <sup>2</sup>	VUA PERIMETER <sup>2</sup>	VUA INTERNAL <sup>2</sup>	TREE COVERAGE <sup>2</sup>	SCREENING <sup>2</sup>	TOTAL QUANTITY REQUIRED

<sup>1</sup>Size refers to required size at planting. For most deciduous trees, this should be caliper only. For most evergreen or multi-stemmed trees and for all shrubs, this should be height at time of planting.

<sup>2</sup>Quantities of each plant provided in each category should be listed, as needed. <sup>3</sup>Key symbols should be unique and should distinguish between the same plants installed in different sizes.

**DURHAM GENERAL STANDARD NOTES** (See also Public Works Standard Notes below): The wording of all notes should be exactly as below. Note that this Section contains all standard notes which should be placed in the General Conditions of Approval Box unless otherwise indicated below. Shaded notes are not required on site plans.

1. **For sites containing floodplain:** All development within the floodway or non-encroachment area or floodway fringe and non-encroachment area fringe, including fill, new construction, substantial improvements, manufactured housing, storage of materials and storage of toxic or flammable substances, is prohibited except as provided by applicable Flood Hazard Regulations of UDO Section 3.22 and 8.4.  
 Floodplain elevation(s) \_\_\_\_\_  
 Floodplain zone \_\_\_\_\_  
 FEMA map number \_\_\_\_\_  
 FEMA map date \_\_\_\_\_  
  
**For sites without floodplain:** This site is not in any Special Flood Hazard Areas or Future Conditions Flood Hazard Areas, as shown on FIRM Panel \_\_\_\_\_ dated \_\_\_\_\_[add correct FIRM panel reference and date].
2. **Stream buffers:** \_\_\_\_ foot wide undisturbed stream buffer, measured from top of bank, each side of stream. No clearing or grading other than selective thinning and ordinary maintenance of existing vegetation permitted, except in accordance with 15A NCAC 02B.233 (6) Vegetation Management. No structures or features requiring grading or construction may be built within the 10 foot stream buffer setback. Any use allowed by Section 8.5.5 of the UDO shall be designed and constructed to minimize the amount of intrusion into the stream buffer and to minimize clearing, grading, erosion and water quality degradation. **(UDO Section 8.5.5 B, C and E).**
3. **For sites containing wetlands:** State and federal permit authorization may be required from the NC DENR, NC DWQ, and the U.S. Army Corps of Engineers prior to the commencement of any land disturbing activities in or near a lake, stream, creek, tributary, or any unnamed body of water and its adjacent wetlands **(UDO Section 8.9.2)**
4. **Wetland buffer note:** \_\_\_\_ foot wide wetland buffer to remain in natural, undisturbed vegetation. Wetland buffers may be used for passive recreational activities, such as walking and bicycling trails, provided that service facilities for such activities, including but not limited to parking, picnicking and sanitary facilities, are located outside of the wetland buffer. Any use allowed by this section shall be designed and constructed to minimize the amount of intrusion into the wetland buffer and to minimize clearing, grading, erosion and water quality degradation. **(UDO Sections 8.9.4 and 8.9.5)**
5. **For residential projects approved for payment in lieu of open space dedication:** Payment in lieu of open space dedication to be made prior to the approval of any final plats per **UDO Section 7.2.2A or Section 12.5.2.**
6. **For projects with Greenways:**  
**On Site Plans:** Greenway plat shall be recorded, showing metes and bounds for the greenway, and evidence of recordation with Book and Page number provided to the Parks and Recreation Department, at time of first final plat approval or prior to issuance of a building permit, whichever comes first.  
**On Preliminary Plats:** Greenway plat shall be recorded, showing metes and bounds for the greenway, and evidence of recordation with Book and Page number provided to the Parks and Recreation Department, at time of first final plat approval  
**On Final Plats (City):** Greenway Easement dedicated to the City of Durham according to the terms stated in Real Estate Book 1503, Pages 898-899. No building or land disturbance except according to those terms; public access granted. **OR** "Deeded to the City of Durham in fee simple for City Greenway; public access granted."
7. **Final Plat Owners Certificate (to be placed near the attorney's certificate and outside the General Conditions of Approval Box):** The undersigned owner of the property lying within the attached plat and subdivision hereby certifies that he/she ordered the work of surveying and platting to be done, and that all public streets, alleys, easements, and other open spaces so designated upon said plat are hereby dedicated for such use and that all public and private easements shown upon said plat are hereby granted for the uses stipulated.
8. **Final Plat Attorney's Certificate (to be placed near the owner's certificate and outside the General Conditions of Approval Box):**  
 I, \_\_\_\_\_ in my capacity as local counsel for \_\_\_\_\_ do hereby certify that to the best of my knowledge and belief that \_\_\_\_\_ is the owner of record of the tract of land described hereon, and that \_\_\_\_\_ is the owner or owner's agent authorized to sign the dedication statement pertaining to this recording . As of this date, \_\_\_\_\_ Signed \_\_\_\_\_
9. **For projects requiring right-of-way dedication:** See Public Works Standard Notes, below.
10. **Street easement note:** \_\_\_\_\_ foot wide City of Durham Public Street Easement, subject to the terms stated in the declaration in Real Estate Book 2350, page 938. No structures, fills, embankments or obstructions permitted within the Easement except according to those terms.
11. **Sidewalk note where there is to be sidewalk construction within ROW as follows:** See Public Works Standard Notes, below.
12. **a. City Driveway note where there is to be a new driveway construction within ROW of a city maintained street as follows:** See Public Works Standard Notes, below.  
**b. State Driveway note where there is to be a new driveway construction within ROW of a state maintained street as follows:** NCDOT Driveway Permit required prior to construction. Contact NCDOT at 220-4750 for requirements.

<b>DURHAM GENERAL STANDARD NOTES (continued)</b> (See also Public Works Standard Notes below): The wording of all notes should be exactly as below. Note that this Section contains all standard notes, however shaded notes are not required on site plans.	
<b>13. Private street design note for townhouses and condominiums in the City limits:</b>	(The following notes shall be added to the site plan and final plats. They can be modified to their specific uses (streets, water, sewer, storm sewer): A) The streets (and utilities) are private and will not be publicly maintained; B) The streets (and utilities) are to remain private since the design does not meet City Design criteria and will not be made public nor maintained by the City; C) The seller is required to notify the buyer of items A and B above.
<b>14. For projects with private access and common areas:</b>	See Public Works Standard Notes for Townhome developments.
<b>15. Parking lots and when no building permit is required, place this note in the Special Conditions of Approval Box:</b>	Owner/developer shall notify the Durham City County Planning Department Site Compliance staff at the completion of construction and landscaping to request an inspection prior to use of the facility.
<b>16. Landscaping/C.O. Standards Note:</b>	All landscaping must be in place prior to request for a Certificate of Compliance. Contact Durham City County Planning Department Site Compliance staff for inspection.
<b>17. Landscape Re-inspection Fee:</b>	Each landscaping compliance inspection after the initial inspection will incur a re-inspection fee, starting at \$100 + 4% technology surcharge. Each subsequent re-inspection will increase by \$100 +4% (example 1 <sup>st</sup> - \$104, 2 <sup>nd</sup> - \$208, 3 <sup>rd</sup> -- \$312, etc). Payment must be received by the Durham City County Planning Department prior to re-inspection.
<b>18. Street Tree Note for all Preliminary and Final Plats Where Trees will be Planted:</b>	Street trees meeting the requirements of <b>Section 9.6.4 of the UDO</b> shall be planted before a Certificate of Compliance is issued, unless the planting has been postponed in accordance with the requirements of <b>Sec. 9.11.2, Extensions for All Other Development.</b>
<b>19. Undisturbed Landscape Buffers:</b>	_____ foot wide undisturbed landscape buffer. No clearing or grading other than selective thinning and ordinary maintenance of existing vegetation permitted.
<b>20. Construction in Preserved Tree Coverage Areas (UDO Section 8.3.1D.5):</b>	<ul style="list-style-type: none"> <li>a. Preserved tree coverage areas shall not be used for active recreational purposes, except for walking paths and foot trails constructed with minimal disturbance of tree roots and existing vegetation provided a registered arborist has certified that the construction of the trail has been designed to minimize impact to the existing trees. No tree over 10 inches shall be removed for the construction of trails. Site plan approval is required for construction of trails in preserved tree coverage areas.</li> <li>b. All buildings shall be set back at least 10 feet from the edge of any preserved tree coverage area.</li> <li>c. Utility lines and drainage channels shall be minimized within the root protection zones of the trees to be saved. Preferably, such facilities should be located adjacent to driveways and in groupings allowed by sound engineering practices.</li> </ul>
<b>21. Tree Protection Note (UDO Sec. 8.3.2E):</b>	Tree protection fencing must be in place prior to any demolition, land disturbance, or issuance of a grading permit and shall include warning signs posted in both English and Spanish, as follows: "No Trespassing/Tree Protection Area/Prohibido Entrar / Zona Protectora Para los Árboles."
<b>22. Root Protection Zone (UDO Sec. 8.3.2):</b>	Equals one foot of radius for every inch of diameter of existing trees, or six foot radius, whichever is greater. No disturbance allowed within this area. Area must be protected with both tree protection fencing and warning signs.
<b>23. Protection of existing vegetation (UDO Sec. 8.3.2D) :</b>	At the start of grading involving the lowering of existing grade around a tree or stripping of topsoil, a clean, sharp, vertical cut shall be made at the edge of the tree save area prior to or at the same time as silt fence and other erosion control measures are installed. The tree protection fencing shall be installed on the side of the cut farthest away from the tree trunk and shall remain in place until all construction in the vicinity of the trees is complete. No storage of materials, fill, or equipment and no trespassing shall be allowed within the boundary of the protected area.
<b>24. For projects including mini-warehouse (self-storage) space:</b>	This approval is for <u>storage purposes only</u> , unless specifically authorized otherwise. Any other use could create Building Code/Zoning violations.
<b>25. UDO Site Lighting Note (UDO Sec. 7.4):</b>	Measures shall be provided to prevent light spillover onto adjacent properties and glare toward motor vehicle operators and shall be indicated on the site plan. Exterior lights shall be shielded so that they do not cast direct light beyond the property line. In accordance with these standards: <ul style="list-style-type: none"> <li>a. The maximum illumination at the edge of the property line adjacent to residential zoning is 0.5 foot candles.</li> <li>b. The maximum illumination at the edge of the property line adjacent to nonresidential zoning is 5.0 foot candles.</li> <li>c. The maximum illumination at the edge of the property line adjacent to a street is 5.0 foot candles.</li> <li>d. The level of illumination as measured in foot candles at any one point shall meet the standards in the table in UDO Section 7.4.3A with minimum and maximum levels measured on the pavement within the lighted area.</li> <li>e. The maximum height for directional or full cut-off lighting fixtures (fixtures designed to insure that no light is emitted above a horizontal line parallel to the ground) shall be 30 feet above grade, measured to the top of the fixture.</li> <li>f. The maximum height for non-directional lighting fixtures, which are defined as fixtures designed to allow light to be emitted above a horizontal line parallel to the ground, shall be 15 feet above grade, measured to the top of the fixture.</li> <li>g. These standards must be verified by field survey (by use of photometric survey) prior to the Certificate of Compliance being issued. All of this information, including details, will be required on building plans prior to issuance of building permit.</li> </ul>

**DURHAM GENERAL STANDARD NOTES (continued)** (See also Public Works Standard Notes below): The wording of all notes should be exactly as below. Note that this Section contains all standard notes, however shaded notes are not required on site plans.

- 26. For projects subject to Federal Fair Housing Regulations:** Be advised that the provisions of Appendix II of the Federal Fair Housing Regulations (Accessibility Guidelines –24 CFR, Ch. 1, Subch. A, App II) effective March 6, 1991 are required on this project. It is the responsibility of the owner/developer/builder to comply with these regulations. Also be aware that these requirements are beyond the scope of Volume I-C (Handicap Accessibility) of the NC State Building Code and as such the burden of compliance is borne by the owner/developer/builder.
- 27. Transportation Facility Permit:** Construction of a proposed parking facility, or modification to an existing facility, that meets or exceeds the following thresholds may require a Transportation Facility Permit from NCDENR, Division of Air Quality, prior to the start of construction: 1500 spaces for surface parking lots; 750 spaces for parking structures, such as decks or garages; or 1000 spaces for a combination of surface parking lots and parking structures. Contact NC Division of Air Quality for more information.
- 28. For projects utilizing on site water supply or waste water disposal:** Approval does not guarantee approval of either on-site water supply or waste water disposal systems or that permits will be issued for the construction of such systems.
- 29. For projects that have water/sewer extensions:** See Public Works Standard Notes, below.
- 30. Sanitary sewer easements:**  
City: See Public Works Standard Notes, below.  
County: Centerline of \_\_\_\_\_ foot wide County of Durham Sanitary Sewer Easement. Subject to terms stated in the Declaration in Real Estate Book 1626, page 145. No structures, fill, embankments, trees or obstructions permitted within the easement except according to those terms.
- 31. City water easement:** See Public Works Standard Notes, below.
- 32. City Storm drainage easements:** See Public Works Standard Notes, below.  
**County Storm or private drainage easements:** Centerline of \_\_\_\_\_ foot wide drainage easement for the benefit of adjacent property owners not maintained by public authorities. No buildings, structures, fills, embankments or obstructions permitted within the easement except according to those terms.
- 33. For sites required to have an Engineered Storm Water Control device:** See Public Works Standard Notes, below.
- 34. For residential developments using curbside collection:** An automated solid waste collection vehicle has an 18-foot wheelbase and a turning radius of 45 feet wall-to-wall and 43 feet curb-to-curb. The Department of Solid Waste Management reserves the right to modify collection of garbage and recyclables for any roadway or cul-de-sac not constructed to accommodate those specifications.
- 35. For commercial projects wanting to receive curbside collection instead of dumpsters:** Garbage volume is not expected to exceed the capacity of four 96-gallon carts per week. All target (banned) recyclables will be separated from garbage and placed in City recycle bins. A waste handling facility will be constructed at the owner's expense at the location designated on the plans in compliance with ordinance and SWM standards should garbage exceed the four-cart per week limit.
- 36. Fire note to be included on utility plan sheet:** Provide Fire Plans Examiner one copy of utility construction drawings, showing underground piping layout and all fire appurtenances. Permit for installation of private fire hydrant(s) must be issued by Fire Plans Examiner prior to installation of said hydrants.
- 37. For commercial sites without proposed restaurants (but where restaurants would be an allowed use in the Zoning District):** As designed, a restaurant facility may not be permitted in this building. A revised site plan will be required to accommodate a grease trap, trash handling and other requirements related to a restaurant facility.

**CITY OF DURHAM PUBLIC WORKS STANDARD NOTES:** The wording of all notes should be exactly as below. Note that this Section contains all standard notes, however shaded notes are not required on site plans.

- A. In the Public Works Conditions of Approval Box, always add the following notes:**
  1. All sizes, materials, slopes, geometry, locations, evaluations, extensions and depths for all existing and proposed streets and utilities (waterlines, sanitary sewer lines and storm drainage conveyance systems) shall be designed to the specifications set forth in the design criteria and standards of the Public Works Department and be subject to review and approval by the Public Works Department at construction drawing submittal.
  2. The designing professional (a NCPE, NCPLS or NCRLA – as required) will submit 3 sets of construction drawings to City Engineering for review and approval before starting construction (see Construction Plan Approval Process). **NOTE:** The approval of construction drawings is separate from site plan approval.
  3. As-built drawings shall be approved prior to water meter and sanitary sewer service connection installations and prior issuance of a certificate of occupancy.
- B. In the Public Works Conditions of Approval Box, add the following notes as required:**
  1. **Extension Agreement required (submit after site plan approved but before construction plans).** Contact Engineering Division (560-4326, FAX 560-4316) with complete name (Individual, Inc., Corp., etc) and telephone number of entity extending services to the site.
  2. **Annexation petition required.** Contact Budget Department @ 560-4111



**CITY OF DURHAM PUBLIC WORKS STANDARD NOTES (continued):** The wording of all notes should be exactly as below. Note that this Section contains all standard notes, however shaded notes are not required on site plans.

**B. In the Public Works Conditions of Approval Box, add the following notes as required (continued):**

3. If a hydrant is proposed a fire flow analysis is required. Waterline size may change with fire flow analysis. Contact City Engineering @ 560-4326 to schedule flow test or to obtain current system data.
4. Water and sewer permits are required for this project.
5. A completed Stormwater Facility Maintenance and Operational Permit Agreement with appropriate fees, calculations and details must be submitted at time of construction plan review. Plans will not be reviewed without these items. Contact Stormwater Services @ 560-4326 for information.
6. Back flow permit required with this project.
7. An NCDOT or City of Durham Driveway Permit is required.

**C. Engineering Division Standard Notes, to be added to the General Conditions of Approval Box, as required:**

**Water easement note:**

Centerline of \_\_\_\_\_ foot wide City of Durham Water Easement. Subject to terms stated in the Declaration in Real Estate Book 1510, page 958. No structures, fill, embankments, trees or obstructions permitted within the easement except according to those terms.

**Sanitary sewer easement notes (use one as applicable by jurisdiction):**

Centerline of \_\_\_\_\_ foot wide City of Durham Sanitary Sewer Easement. Subject to terms stated in the Declaration in Real Estate Book 1510, page 958. No structures, fill, embankments, trees or obstructions permitted within the easement except according to those terms.

Centerline of \_\_\_\_\_ foot wide County of Durham Sanitary Sewer Easement. Subject to terms stated in the Declaration in Real Estate Book 1626, page 145. No structures, fill, embankments, trees or obstructions permitted within the easement except according to those terms.

**Sidewalk note:**

The location of the sidewalks shown on this plan is schematic. A City of Durham and/or NCDOT encroachment permit is required prior to any construction. After obtaining the required permits, please contact the City of Durham Engineering Construction Inspection office at 560-4326 for a pre-construction conference and field visit prior to any work on the proposed sidewalk.

**Driveway permit notes:**

A City of Durham Driveway Permit is required prior to any driveway construction on public right-of-way. Submit plans for Driveway Permit approval to City Engineering Development Review. After obtaining the permit, please call City of Durham Engineering Inspection office at 560-4326 prior to start of construction.

NCDOT Driveway Permit required prior to construction. Contact NCDOT at 220-4750 for requirements.

**Utility Notes:**

A Utility Mainline Construction permit is required prior to the installation of each utility. All utilities shall submit plan drawings and applications to the City Engineering Division.

**Water service abandonment:**

Abandonment of water services shall include excavating down to corporation, turning it off and cutting service line free from corporation. The meter, if present, shall be returned to City of Durham.

**Sanitary sewer service abandonment:**

Abandonment of sanitary sewer service lines shall consist of excavating down to the service connection to the main, cutting this connection and installing a watertight plug in the main. All clean-out risers on the service line should be removed. The service line can be abandoned in place.

**D. Provide Utility Crossing Construction note where there are new mainline (public or private) utilities proposed on plans as follows:**

**Water, sanitary sewer and storm sewer separation notes:**

**1. Horizontal and Vertical Separation**

- A. Sanitary Sewers shall be laid at least 10-feet horizontally from any existing or proposed water main. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10-foot separation, the City of Durham may allow deviation on a case-by-case basis, if supported by data from the design engineer. Such deviation may allow the installation of the sanitary sewer closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on one side of the sanitary sewer and at an elevation so the bottom of the water main is at least 18-inches above the top of the sewer.
- B. If it is impossible to obtain proper horizontal and vertical separation as described above or anytime the sanitary sewer is over the water main, both the water main and sanitary sewer must be constructed of ferrous pipe complying with the public water supply design standards and be pressure tested to 150-psi to assure water tightness before backfilling.

**CITY OF DURHAM PUBLIC WORKS STANDARD NOTES (continued):** The wording of all notes should be exactly as below. Note that this Section contains all standard notes, however shaded notes are not required on site plans.

**D. Utility Crossing Construction note where there are new mainline (public or private) utilities proposed on plans as follows (cont'd):**

- C. A 12-inch vertical separation shall be provided between storm sewer and sanitary sewer lines or ferrous pipe specified. A 12-inch vertical separation shall be provided between storm sewer and water mains.
  - 1. If a 12-inch vertical separation is not maintained at a crossing between storm sewer and water mains (or pressure sewers). The water main shall be constructed of ferrous pipe and a concrete collar shall be poured around water mains and storm sewer to immobilize the crossing.

**2. Crossings**

- A. Sanitary Sewer crossing water mains shall be laid to provide a minimum vertical distance of 18-inches between the outside of the water main and the outside of the sanitary sewer. The crossing shall be arranged so that the sanitary sewer joints will be equidistant and as far as possible from the water main joints.
- B. When it is impossible to obtain proper horizontal and vertical separation as stipulated above, one of the following methods must be specified.
  - 1. The sanitary sewer shall be designed and constructed of ferrous pipe and shall be pressure tested at 150-psi to assure water tightness prior to backfilling, or  
Either the water main or the sanitary sewer line may be encased in a watertight carrier pipe, which extends 10-feet on both sides of the crossing, measured perpendicular to the water main. The carrier pipe shall be of materials approved by the City of Durham for use in water main construction.

**E. In the Public Works Conditions of Approval Box, add the following Stormwater Services notes to Site Plans and Preliminary Plats, as applicable:**

**1. FEMA Flood Study Required:**

A CLOMR shall be obtained from FEMA prior to construction drawing approval. A LOMR shall be obtained from FEMA prior to issuance of any certificates of occupancy or certificates of compliance.

**2. For Developments within the Neuse River Basin (Payment, if required, to be determined during site plan review):**

A site plan cannot be approved until a receipt from the North Carolina Ecosystem Enhancement Program has been received by the City of Durham confirming the payment of \$X.XX in offset fees.

**3. For Developments required to have a stormwater BMP facility:**

- A. Final design calculations for the stormwater BMP facility will require the use of storage indication routing methodology such as TR-20 or HEC-1 models. For the BMP facility, provide stage-storage relationship and inflow and outflow hydrographs. Provide all tabulated data including calculations showing the outlet under orifice control, barrel control and weir control, as appropriate, to show how the routing was developed.
- B. An executed stormwater facility operation and maintenance permit agreement (prepared by Stormwater Services, City of Durham), payment of stormwater facility permit fee per BMP facility and perpetual surety for the continued operation and maintenance of the facility is required prior to construction plan approval.
- C. An as-built certification for the stormwater BMP(s), provided by the design engineer, is required. The as-built shall be submitted per the *Reference Guide for Development*, approved by the Stormwater Services Division and the BMP(s) shall be inspected and approved by the Stormwater Services Division prior to issuance of any certificates of occupancy or certificates of compliance for the project.
- D. A completed City of Durham Design Summary is required for each stormwater BMP facility no later than at the first construction drawing submittal.
- E. Stormwater BMP facility design calculations will not be reviewed or approved with the Site Plan/Preliminary Plat submittal. All stormwater BMP facility designs will be reviewed and approved during the construction drawing submittal process.

**In the General Conditions of Approval Box add the following Stormwater Services Standard Notes: (Note that these notes may or may not apply to the project depending on the requirements of the project, determined during review)**

**Stormwater Drainage Easement Note (width determined at construction drawings):**

Centerline of \_\_\_\_\_ foot wide public storm water drainage easement. Ownership of and responsibility for improvement and maintenance of storm water facilities in this easement remains with the current owner. If the property is within or becomes a part of the City, the easement and access points to the easement are subject to the terms and restrictions stated in the "Revised Declaration of Rights and Privileges of the City of Durham in Storm Water Management Facility Easements" recorded in Real Estate Book 2298, Page 208, which document is incorporated herein. This easement and the Revised Declaration do not create the obligation to provide public maintenance. No building, structures, fills, embankments or obstructions permitted within the easement except according to those terms.



***City of Durham***  
***Public Works Department***  
***Stormwater Services Divisions***  
 101 City Hall Plaza  
 Durham, North Carolina, 27701  
 Telephone (919) 560-4326  
 Fax (919) 560-4316

Design Professional 's Signature and Seal

### Stormwater Services Site Plan and Preliminary Plat Submittal Checklist

**For each review submittal, including re-submittals, the entire study and submittal checklist shall be submitted. Partial study packages will NOT BE REVIEWED and will be returned with NO REVIEW PERFORMED.**

**Contact Stormwater Services regarding redevelopment or expansion projects for modified requirements.**

#### ***I. PROJECT INFORMATION***

Project Name: \_\_\_\_\_ Phase: \_\_\_\_\_  
 Previous Project Name, if applicable: \_\_\_\_\_  
 PIN: \_\_\_\_\_ Planning Case Number: \_\_\_\_\_  
 Project Comment Contact Person: \_\_\_\_\_ Phone number \_\_\_\_\_  
 Fax number: \_\_\_\_\_ Company Name: \_\_\_\_\_

#### ***II. REQUIRED ITEMS CHECKLIST***

The following checklist outlines submittal requirements. Initial in the space provided to indicate the following submittal requirements have been met and supporting documentation is attached.

##### ***A. General Requirements***

##### **Applicant's initials**

- \_\_\_\_\_ a. Stormwater Impact Analysis (SIA) including narrative report and drainage calculations sealed and signed by North Carolina Professional Engineer.
- \_\_\_\_\_ b. Cape Fear / Neuse Basin (circle one).  
 (If Neuse Basin circled completion of **Section D.** below is required)
- \_\_\_\_\_ c. INSIDE / OUTSIDE (circle one) Water Supply Watershed Overlay.  
 (If INSIDE Water Supply Watershed completion of **Section E.** below is required)
- \_\_\_\_\_ d. Show all City of Durham, Water Supply Watershed and Neuse River Basin Stream Buffers on the plan. Top of bank for the streams have been shown on the plan. Show the 10-foot no build setback measured from the stream buffer line. Diffuse flow into stream buffers is required for all stream buffers.
- \_\_\_\_\_ e. Durham County Soils Survey, including map reference, with site boundary clearly shown and labeled. The map shall clearly show all streams, soil types and soil type boundaries.

- \_\_\_\_\_ f. USGS 7.5 Minute Quadrangle map, including map reference, with site boundary clearly shown and labeled. The map shall clearly show all streams.
- \_\_\_\_\_ g. Floodplain located on site: Yes / No (circle one).
- \_\_\_\_\_ h. A copy of the effective floodplain map, including panel number and map date, with site boundary clearly shown and labeled has been provided regardless if floodplain is located on the site. Show the floodway, 100-year floodplain and/or future 100-year floodplain with base flood elevations (if applicable) on the plan.

***B. Peak Runoff Rate Increases<sup>1</sup>***

- \_\_\_\_\_ a. Introduction narrative describing site conditions in pre- and post-development conditions including a description of site improvement changes.
- \_\_\_\_\_ b. Drainage area maps (one map for pre-development; one map for post-development) with:  
       \_\_\_ Scale and north arrow.  
       \_\_\_ Sub-basin area(s) delineated with area(s) in acres indicated.  
       \_\_\_ Analysis points clearly identified and labeled.  
       \_\_\_ Segmented TR-55 time of concentration flow paths showing each segment.
- \_\_\_\_\_ c. Methodologies and procedures described.
- \_\_\_\_\_ d. Site plan or grading plan identifying pre- and post-development drainage patterns.
- \_\_\_\_\_ e. Pre- and post-development times of concentration calculated by TR-55 segmented approach.
- \_\_\_\_\_ f. Calculations for the pre- and post-development discharges for the 2- and 10-year, 24-hour storm using TR-55, TR-20, HEC-HMS, HEC-1 or Rational Method.
- \_\_\_\_\_ g. Summary of Results provided in the following format (see Example below).

<b><i>BASIN NAME</i></b>	<b><i>Pre- Developed 2-year discharge</i></b>	<b><i>Post- Developed 2-year discharge</i></b>	<b><i>% Increase</i></b>	<b><i>Pre- Developed 10-year discharge</i></b>	<b><i>Post- Developed 10-year discharge</i></b>	<b><i>% Increase</i></b>	<b><i>Detention Required (Yes/No)</i></b>	<b><i>Remarks</i></b>

- \_\_\_\_\_ h. Conclusion providing detailed findings.
- \_\_\_\_\_ i. Stormwater Control Facility (BMP) provided (indicate number of each type of BMP):  
       \_\_\_ Constructed Wetland \_\_\_ Dry Detention Pond \_\_\_ Underground Detention  
       \_\_\_ Wet Detention Pond \_\_\_ Not required (explanation) \_\_\_\_\_
- \_\_\_\_\_ j. BMP benefits: \_\_\_ Control 2- and 10-year discharge \_\_\_ Other \_\_\_\_\_
- \_\_\_\_\_ k. Downstream Analysis Provided with Findings or \_\_\_ Not required: \_\_\_\_\_
- \_\_\_\_\_ l. Downstream Improvements Proposed with a signed notarized agreement (agreement shall be recorded prior to site plan approval) with downstream property owner(s) Y / N

<sup>1</sup> See Design Summaries and NCDENR BMP Manual (latest edition) for details and BMP design requirements.  
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**C. City of Durham Stream Buffers**

- \_\_\_\_\_ a. All streams, both intermittent and perennial, shown on the Durham County Soil Survey and the USGS 7.5 Minute Quadrangle map have been shown on the plan. Top of bank for the streams has been shown on the plan. Stream buffers shall be shown from the tops of banks of the streams and a 10-foot no build setback shall be shown measured from the stream buffer line. Diffuse flow into stream buffers is required.

**D. Neuse Basin Requirements<sup>23</sup>**

Note: If a single family, duplex or recreational development disturbs  $\leq 1$  acre or a multi-family, office, institutional, commercial or industrial development disturbs  $\leq 0.5$  acres then items b, c, d, and e below are N/A. Additionally, new residential development may be exempt from the 1-year peak runoff control requirement if impervious area does not exceed 15% and swales and other natural stormwater conveyances are used to maximum extent practicable. ITEMS a. AND f. SHALL BE PROVIDED FOR ALL PROJECTS.

- \_\_\_\_\_ a. All streams, both intermittent and perennial, shown on the Durham County Soil Survey or USGS 7.5 Minute Quadrangle map, require a Neuse River Basin Stream Buffer. The tops of banks for the streams have been shown on the plan. The stream buffer has been measured from the tops of banks and the 10-foot no build setback is shown from the stream buffer. Diffuse flow into stream buffers is required for all stream buffers.
- \_\_\_\_\_ b. Pre- and post-development discharge calculations for the 1-year 24-hour storm using TR-55, TR-20, HEC-HMS or HEC-1. (1-year, 24-hour storm rainfall is 3-inches)
- \_\_\_\_\_ c. Summary of Results provided in the following format (see Example below).

<i><b>BASIN NAME</b></i>	<i><b>Pre- Developed 1-year discharge</b></i>	<i><b>Post- Developed 1-year discharge</b></i>	<i><b>% Increase</b></i>	<i><b>Detention Required (Yes/No)</b></i>	<i><b>Remarks</b></i>

- \_\_\_\_\_ d. BMP provided (indicate number of each type of BMP for 1-year detention): \_\_\_\_Constructed Wetland \_\_\_\_Dry Detention Pond \_\_\_\_Underground Detention \_\_\_\_Wet Detention Pond \_\_\_\_Other \_\_\_\_\_ Not required (explanation) \_\_\_\_\_
- \_\_\_\_\_ e. BMP provided (indicate number of each type of BMP for nitrogen treatment):  
 \_\_\_\_Bioretention Area \_\_\_\_Constructed Wetlands \_\_\_\_Sand Filter \_\_\_\_Wet Detention Pond  
 \_\_\_\_Other \_\_\_\_\_ Not required  
 (explanation) \_\_\_\_\_
- \_\_\_\_\_ f. Pre- and post-development nitrogen calculations with City of Durham Nitrogen Spreadsheet.

**E. Water Supply Watershed Requirements<sup>4</sup>**

- \_\_\_\_\_ a. Indicate the water supply watershed overlay district(s) the project is located. (Circle all that apply): F/J-A F/J-B E-A E-B M/LR-A M/LR-B

<sup>2</sup> See Section 8.2, Neuse River Basin Performance Standards, for additional details.

<sup>3</sup> See Design Summaries and NCDENR BMP Manual (latest edition) for details and BMP design requirements.

<sup>4</sup> See Design Summaries and NCDENR BMP Manual (latest edition) for details and BMP design requirements.



\_\_\_\_\_ b. BMP provided (indicate number of each type of BMP): \_\_\_\_Bioretention Area

\_\_\_\_Constructed Wetlands \_\_\_\_Sand Filter \_\_\_\_Wet Detention \_\_\_\_Other \_\_\_\_\_

\_\_\_\_Not required

\_\_\_\_\_ c. **Narrative** explaining why a BMP is not provided.

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\_\_\_\_\_ d. All runoff from all impervious surface areas are directed into the BMP.

\_\_\_\_\_ e. All streams, both intermittent and perennial, shown on the USGS 7.5 Minute Quadrangle map have been shown on the plan. Top of bank for the streams has been shown on the plan. Stream buffers shall be shown from the tops of banks of the streams and a 10-foot no build setback shall be shown measured from the stream buffer line. Diffuse flow into stream buffers is required for all stream buffers.



## County of Durham

Engineering Department  
Stormwater and Erosion Control Division  
120 E. Parrish Street, Law Bldg., 1st Floor  
Durham, North Carolina 27701  
(919)560-0735 Fax: (919)560-0740

Design Professional's Signature, Seal, & Date

### Stormwater and Erosion Control Division Site Plan and Preliminary Plat Submittal Checklist

For each review submittal the entire study must be submitted. This includes re-submittals. Partial study packages will not be reviewed. Incomplete Stormwater Site Plan Submittals will be returned with NO REVIEW PERFORMED. Contact Stormwater and Erosion Control Division concerning redevelopment, expansion or projects which result in a decrease in impervious area for modified submittal requirements. This submittal checklist is to be submitted with each plan submittal.

#### I. PROJECT INFORMATION

Project Name: \_\_\_\_\_ Phase: \_\_\_\_\_  
 Previous Project Name, if applicable: \_\_\_\_\_  
 PIN: \_\_\_\_\_ Tax Map Number \_\_\_\_\_ Planning Case Number: \_\_\_\_\_  
 Owner \_\_\_\_\_ Phone Number \_\_\_\_\_  
 Owner Address \_\_\_\_\_  
 Project Comment Contact Person: \_\_\_\_\_ Phone number \_\_\_\_\_  
 Fax number: \_\_\_\_\_ Company Name: \_\_\_\_\_

#### II. REQUIRED ITEMS CHECKLIST

The following checklist outlines submittal requirements. Initial in the space provided to indicate the following submittal requirements have been met and supporting documentation is attached.

##### A. General Requirements

##### Applicant's initials

- \_\_\_\_\_ a. Stormwater Impact Analysis (SIA) including narrative report and drainage calculations sealed and signed by North Carolina Professional Engineer.
- \_\_\_\_\_ b. Cape Fear / Neuse Basin (circle one).  
(If Neuse Basin circled completion of **Section D.** below is required)
- \_\_\_\_\_ c. INSIDE / OUTSIDE (circle one) Water Supply Watershed.  
(If INSIDE Water Supply Watershed completion of **Section E.** below is required)
- \_\_\_\_\_ d. Show all Durham County and Neuse Basin Stream Buffers on the plan. Diffuse flow into stream buffers is required.
- \_\_\_\_\_ e. Floodplain located on site: Yes / No (circle one). A copy of floodplain map with site boundary shown is required and the 100-year floodplain with base flood elevations (if applicable) must be shown on the site plan.

**County Stormwater and Erosion Control Division Site Plan and Preliminary Plat Submittal Checklist  
(continued)**

**B. 10% Stormwater Rule Requirements**

- \_\_\_\_\_ a. Durham County Soils map with site boundary shown.
- \_\_\_\_\_ b. USGS 7.5 Minute Quadrangle with site boundary shown.
- \_\_\_\_\_ c. Introduction narrative describing the site conditions in pre- and post-development conditions including a description of site improvement changes.
- \_\_\_\_\_ d. Drainage area map including:
- \_\_\_\_\_ Site area delineated, scale and north arrow.
- \_\_\_\_\_ Sub-basins delineated for pre- and post-development conditions with area in acres indicated.
- \_\_\_\_\_ Analysis points clearly identified and labeled.
- \_\_\_\_\_ Segmented TR-55 time of concentration flow paths showing each segment.
- \_\_\_\_\_ e. Methodologies and procedures described.
- \_\_\_\_\_ f. Site plan or grading plan identifying pre- and post-development drainage patterns.
- \_\_\_\_\_ g. Pre- and post-development times of concentration calculated using the TR-55 segmented approach.
- \_\_\_\_\_ h. Calculations for the pre- and post-development discharges for the 1-, 2- and 10-year 24-hour storm using TR-55, TR-20, HEC-HMS, HEC-1 or Rational Method. The discharge point for these calculations is the property boundary.
- \_\_\_\_\_ i. Summary of Results provided in the following format (see Example below).

<b>BASIN NAME</b>	<b><i>Pre- Developed 1-year discharge</i></b>	<b><i>Post-- Developed 1-year discharge</i></b>	<b><i>% Increase</i></b>	<b><i>Pre- Developed 2-year discharge</i></b>	<b><i>Post- Developed 2-year discharge</i></b>	<b><i>% Increase</i></b>	<b><i>Pre- Developed 10-year discharge</i></b>	<b><i>Post- Developed 10-year discharge</i></b>	<b><i>% Increase</i></b>	<b><i>Detention Required (Yes/No)</i></b>

- \_\_\_\_\_ j. Conclusion providing detailed findings.
- \_\_\_\_\_ k. BMP provided (indicate quantity):    \_\_\_Wet Pond   \_\_\_Sand Filter   \_\_\_Bioretention   \_\_\_Dry Detention  
   \_\_\_ Other \_\_\_\_\_  
   \_\_\_ Not required
- \_\_\_\_\_ l. BMP benefits:   \_\_\_control 1-, 2- and 10-year discharge  
   \_\_\_ Other \_\_\_\_\_  
   \_\_\_ Not required

**County Stormwater and Erosion Control Division Site Plan and Preliminary Plat Submittal Checklist**  
**(continued)**

***C. Durham County Stream Buffers***

- \_\_\_\_\_ a. A copy of the Durham County Soils map and the USGS 7.5 Minute Quadrangle with the site indicated has been provided. Diffuse flow into buffers is required.
- \_\_\_\_\_ b. All Durham County stream buffers are shown on the plan for intermittent and perennial streams shown on the Durham County Soils map or the USGS 7.5 Minute Quad. Diffuse flow into buffers is required
- \_\_\_\_\_ c. NCDENR documentation for approval of buffer impacts provided.
- \_\_\_\_\_ d. Stream delineations (Cape Fear / Neuse Basin). If in Neuse Basin, provide NCDENR Division of Water Quality documentation. If in Cape Fear Basin, provide report as required by Section 14-153(b)(3) (i) of the County Stormwater Ordinance.

***D. Neuse Basin Requirements***

Note: If a single family, duplex, or recreational development disturbs  $\leq 1$  acre or a multi-family, office, institutional, commercial or industrial development disturbs  $\leq 0.5$  acres then all items below are N/A.

- \_\_\_\_\_ a. Pre- and post-development nitrogen calculations using Durham County Nitrogen Calculation Tables.
- \_\_\_\_\_ b. Nitrogen buy-down calculations (if necessary). Site plan will not be approved until WRF payment is verified.

***E. Water Supply Watershed Requirements***

- \_\_\_\_\_ a. Indicate the water supply watershed overlay district(s) the project is located. (Circle all that apply) (F/J-A, F/J-B, E-A, E-B, M/LR-A, M/LR-B)
- \_\_\_\_\_ b. Provided BMP for 85% TSS removal or **narrative** explaining why it is not provided
- \_\_\_\_\_
- \_\_\_\_\_ c. BMP provided: \_\_\_Wet Pond \_\_\_Sand Filter \_\_\_Bioretention \_\_\_Dry Detention  
\_\_\_Other \_\_\_\_\_  
\_\_\_ Not required
- \_\_\_\_\_ d. BMP benefits: \_\_\_85% TSS Removal \_\_\_Other \_\_\_\_\_  
\_\_\_Not required

Note: Executed Stormwater Facility Operation and Maintenance Permit Agreement, payment of permit fee and payment of surety are required prior to construction drawing approval.